



Panasonic[®]

Operating Instructions LCD TV

Model No. **TX-37LZ800A**

VIERA

VIERA
Link

SD
HC

SRS
TruSurround XT

HDMI
HIGH-DEFINITION MULTIMEDIA INTERFACE

Please read these instructions before operating your set and retain them for future reference.
The images shown in this manual are for illustrative purposes only.

English

TQB4GC0009

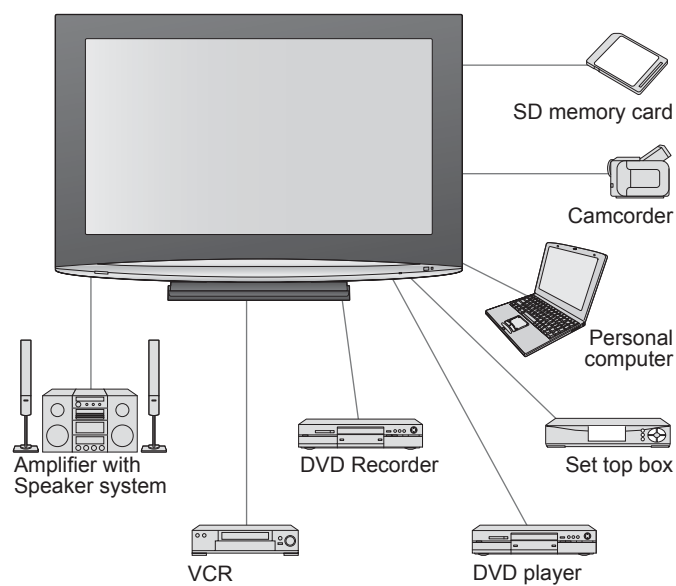
Turn your own living room into a movie theatre!

Experience an amazing level of multi-



media excitement

Enjoy rich multi-media



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(Warning / Caution)
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Enjoy your TV!

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Safety Precautions

Warning

Handling the mains plug and lead

- Insert the mains plug fully into the socket outlet. (If the mains plug is loose, it could generate heat and cause fire.)
- Ensure that the mains plug is easily accessible.
- Do not touch the mains plug with a wet hand. (This may cause electrical shock.)
- Do not damage the mains lead. (A damaged lead may cause fire or electrical shock.)
 - Do not move the TV with the lead plugged in the socket outlet.
 - Do not place a heavy object on the lead or place the lead near a high-temperature object.
 - Do not twist the lead, bend it excessively, or stretch it.
 - Do not pull on the lead. Hold onto the mains plug body when disconnecting lead.
 - Do not use a damaged mains plug or socket outlet.

If you find any abnormality, remove the mains plug immediately!

AC 230 V
50 Hz

Power source

- This TV is designed to operate on 230 V, 50 Hz AC.

Do not remove covers NEVER modify the TV yourself

(High-voltage components may cause serious electrical shock.)

- Have the TV checked, adjusted, or repaired at your local Panasonic dealer.

Keep liquids away from the TV

- To prevent damage which may result in fire or shock hazard, do not expose this appliance to dripping or splashing.
- Do not place containers with water (flower vase, cups, cosmetics, etc.) above the TV. (including on shelves above, etc.)

Do not expose to direct sunlight and other sources of heat

- Avoid exposing the TV to direct sunlight and other sources of heat. To prevent fire never place any type of candle or naked flame on top or near the TV.

Do not place foreign objects inside the TV

- Do not let metal or flammable objects drop into the TV through the air vents (fire or electrical shock may result).

Do not place the TV on sloped or unstable surfaces

- The TV may fall off or tip over.

Use only the dedicated stands / mounting equipment

- Using an unauthorized stand or other fixtures may make the TV shaky, risking injury. Be sure to ask your local Panasonic dealer to perform setup.
- Use optional stands / mounts (p. 6).

Do not allow children to handle SD card

- As with a small object, SD card can be swallowed by young children. Please remove SD card immediately after use.

Notes

Caution

■ When cleaning the TV, remove the mains plug

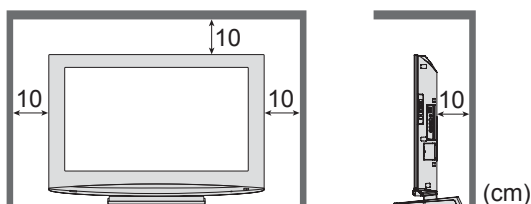
(Cleaning an energized TV may cause electrical shock.)

■ When TV will not be used for a long time, remove the mains plug

- This TV will still consume some power even in the Off mode, as long as the mains plug is still connected to a live socket outlet.

■ Allow sufficient space around the TV for radiated heat

Minimum distance



- When using the pedestal, keep the space between the bottom of the TV and the floor surface.
- In case of using Wall-hanging bracket, follow the manual of it.

■ Do not block the rear air vents

- Blocked ventilation by curtains, etc. may cause overheating, fire or electrical shock.

■ Do not expose your ears to excessive volume from the headphones

- Irreversible damage can be caused.

■ Auto power standby function

- If no signal is received and no operation is performed in TV mode for 30 minutes, the TV will automatically go to standby mode.

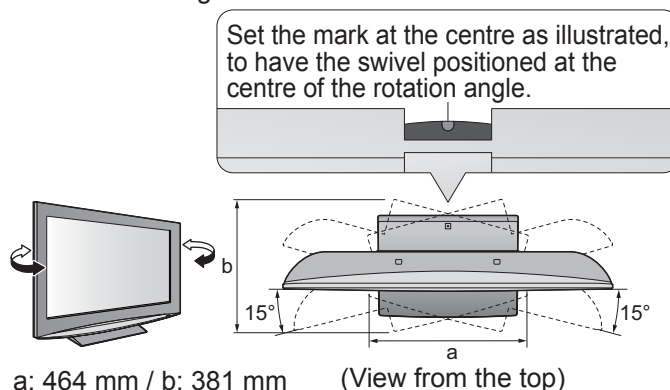
■ Keep the TV away from these equipment

- Electronic equipment
In particular, do not place video equipment near the TV (electromagnetic interference may distort images / sound).
- Equipment with an infrared sensor
This TV also emits infrared rays (this may affect operation of other equipment).

■ Transport only in upright position

■ Adjust the LCD panel to your desired angle

- Ensure that the pedestal does not hang over the edge of the base even if the TV swivels to the full rotation range.
- Do not place any objects or hands within the full rotation range.



Maintenance

First, remove the mains plug from the socket outlet.

Display panel

Regular care: Gently wipe the surface clean of dirt by using a soft cloth.

Major contamination: Wipe the surface clean using a soft cloth dampened with clean water or diluted neutral detergent by 100 times of water. Then, using a soft dry cloth, evenly wipe the surface clean until it is dry.

Caution

- The surface of the display panel has been specially treated and may be easily damaged. Do not tap or scratch the surface with your fingernail or other hard object.
- Use care not to subject the surface to bug repellent, solvent, thinner, or other volatile substances (this may degrade surface quality).

Cabinet

Regular care: Wipe the surface clean using a soft dry cloth.

Major contamination: Dampen a soft cloth with clean water or water containing a small amount of neutral detergent. Then, wring the cloth and wipe the surface clean with it. Finally, wipe the surface clean with a dry cloth.

Caution

- Use care not to subject the TV's surfaces to detergent. (A liquid inside the TV could lead to product failure.)
- Use care not to subject surfaces to bug repellent, solvent, thinner, or other volatile substances (this may deteriorate the surface by peeling the paint).
- Do not allow the cabinet to make contact with a rubber or PVC substance for a long time.

Mains plug

Wipe the mains plug with a dry cloth at regular intervals. (Moisture and dust may lead to fire or electrical shock.)

Accessories / Options

Standard accessories

Check that you have the accessories and items shown ☒

☐ Remote Control Transmitter

● N2QAYB000120



☐ Batteries for the Remote Control Transmitter (2)

● R6 (AA)



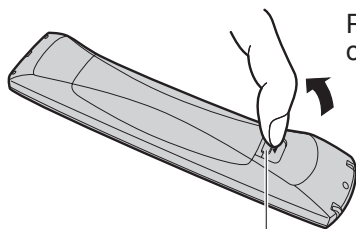
☐ Cleaning cloth



☐ Operating Instructions

Installing remote's batteries

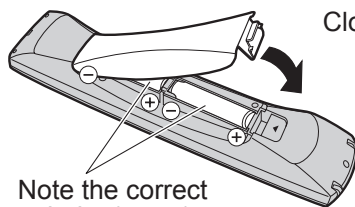
1



Pull open

Hook

2



Close

Note the correct polarity (+ or -)

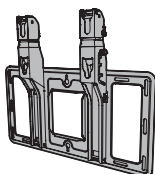
Caution

- Incorrect installation may cause battery leakage and corrosion, resulting in damage to the remote control.
 - Do not mix old and new batteries.
 - Do not mix different battery types (such as alkaline and manganese batteries).
 - Do not use rechargeable (Ni-Cd) batteries.
 - Do not burn or breakup batteries.
- Batteries must not be exposed to excessive heat such as sunshine, fire or the like.

Optional accessories

Wall-hanging bracket

● TY-WK32LR2W



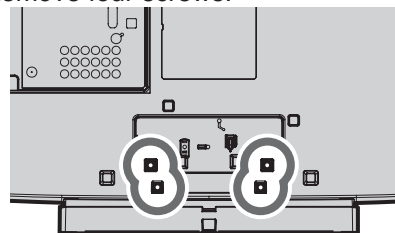
Please contact your nearest Panasonic dealer to purchase the recommended wall-hanging bracket. For additional details, please refer to the wall-hanging bracket installation manual.

WARNING!

- Failure to use a Panasonic bracket or choosing to mount the unit yourself will be done at the risk of the consumer. Any damage resulting from not having a professional installer mount your unit will void your warranty.
- Always be sure to ask a qualified technician to carry out set-up. Incorrect fitting may cause equipment to fall, resulting in injury and product damage.
- Do not mount the unit directly below ceiling lights (such as spotlights, floodlights or halogen lights) which typically give off high heat. Doing so may warp or damage plastic cabinet parts.

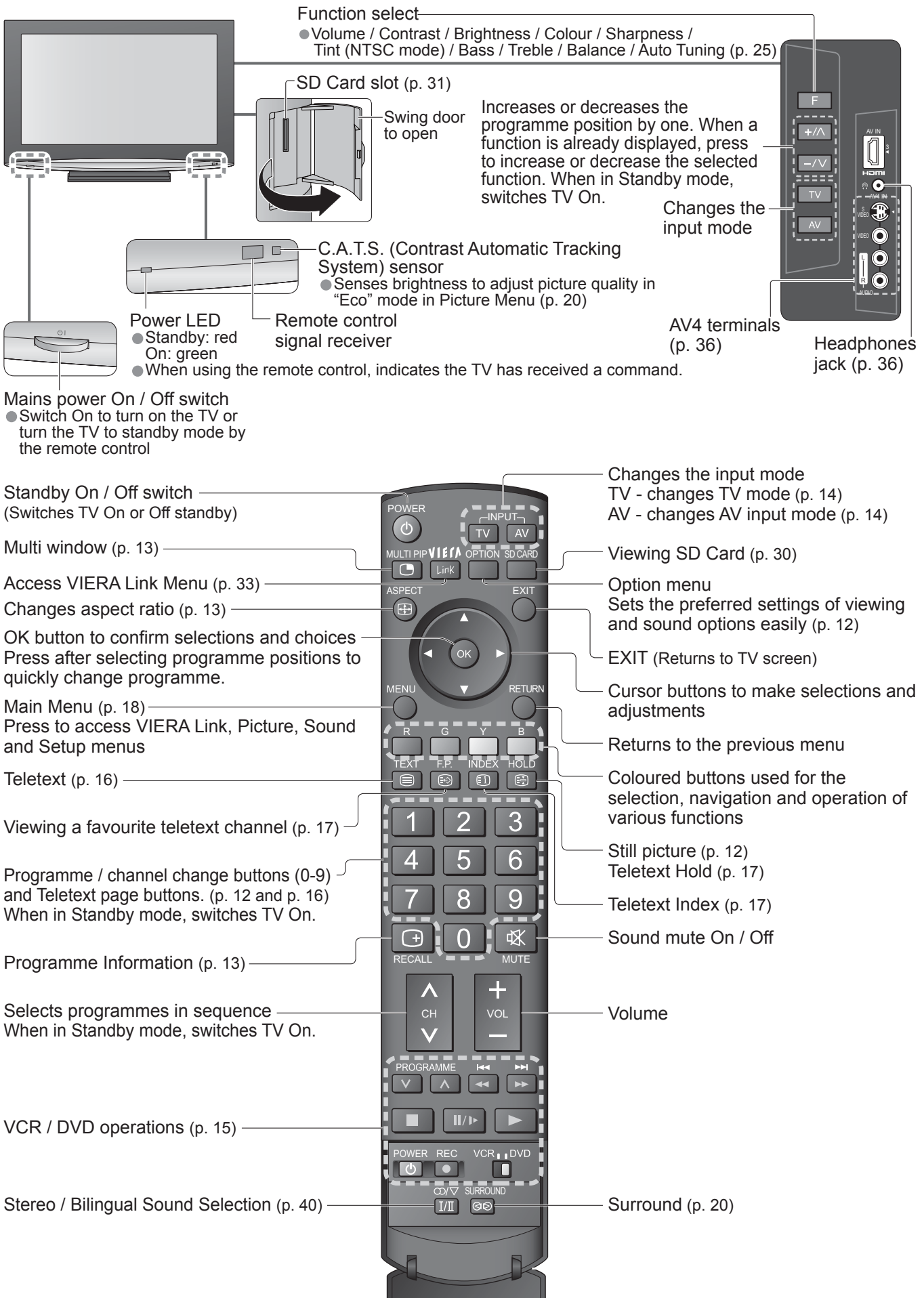
How to remove the TV Stand

Remove four screws.



Rear of the TV

Identifying Controls



Basic Connection

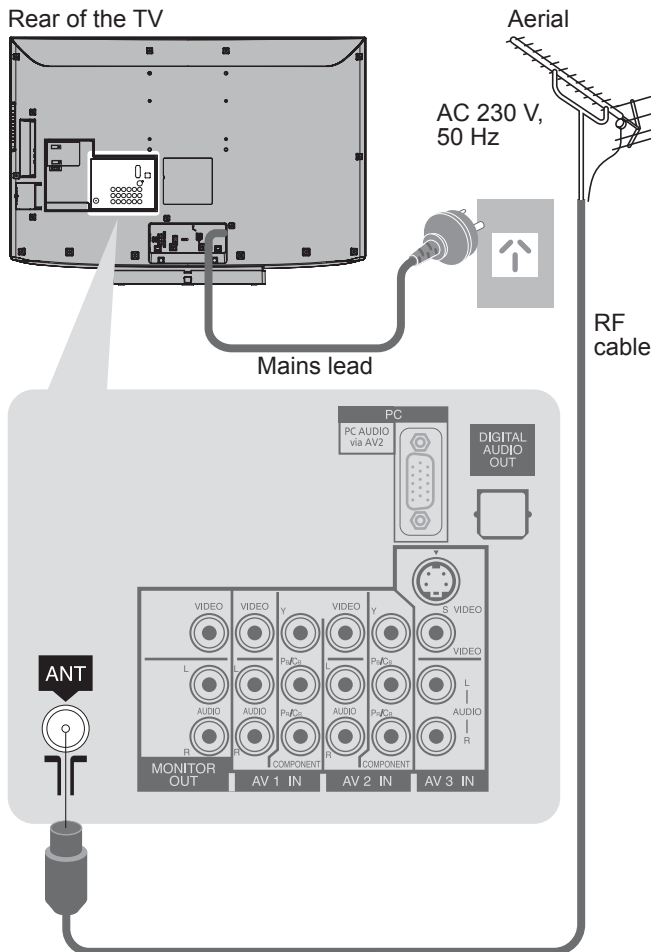
External equipment and cables shown are not supplied with this TV.

Please ensure that the unit is disconnected from the mains socket before attaching or disconnecting any leads.

Example 1 Connecting aerial

TV only

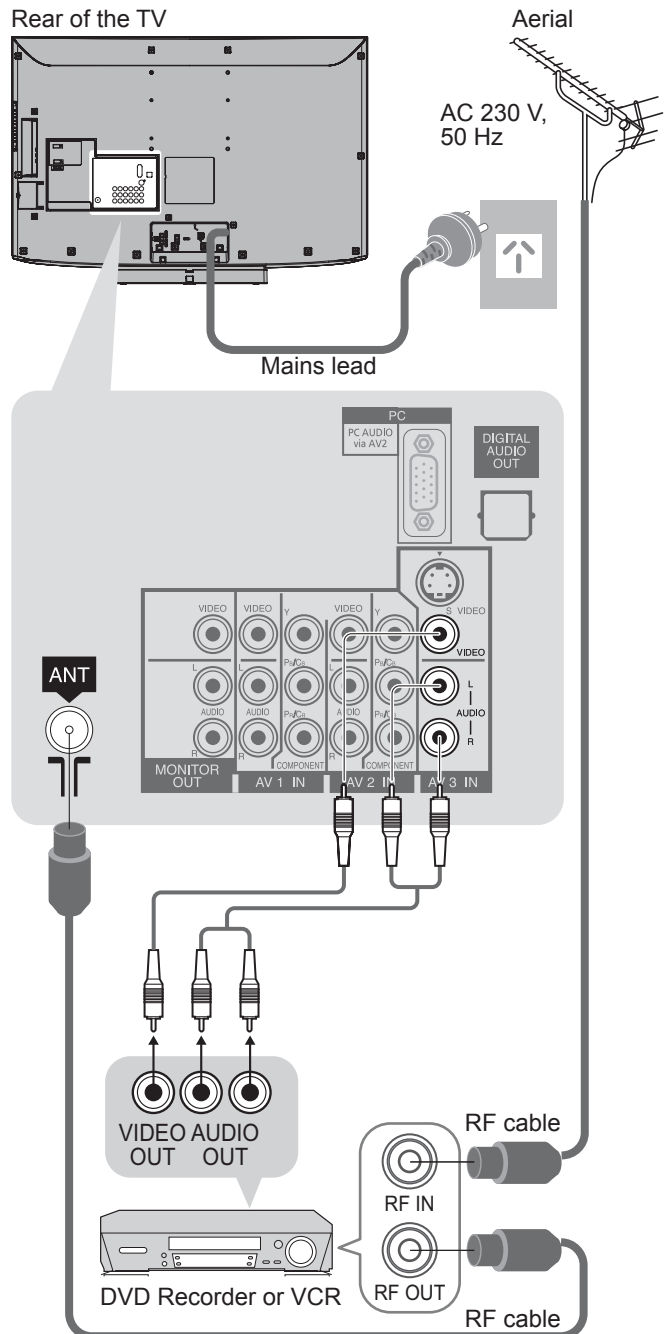
Rear of the TV



Example 2 Connecting DVD Recorder / VCR

TV, DVD Recorder or VCR

Rear of the TV



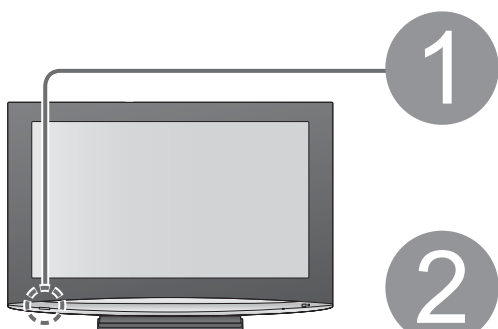
Note

- Do not put the Coaxial cable close to the mains lead to avoid noise.
- Do not place the Coaxial cable under the TV.
- To obtain optimum quality picture and sound, an Aerial, the correct cable (75 Ω coaxial) and the correct terminating plug are required.
- If a communal Aerial system is used, you may require the correct connection cable and plug between the wall Aerial socket and the TV.
- Your local Television Service Centre or dealer may be able to assist you in obtaining the correct Aerial system for your particular area and the accessories required.
- Any matters regarding Aerial installation, upgrading of existing systems or accessories required, and the costs incurred, are the responsibility of you, the Customer.

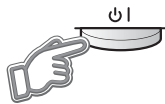
Auto Tuning

Search and store TV channels automatically.

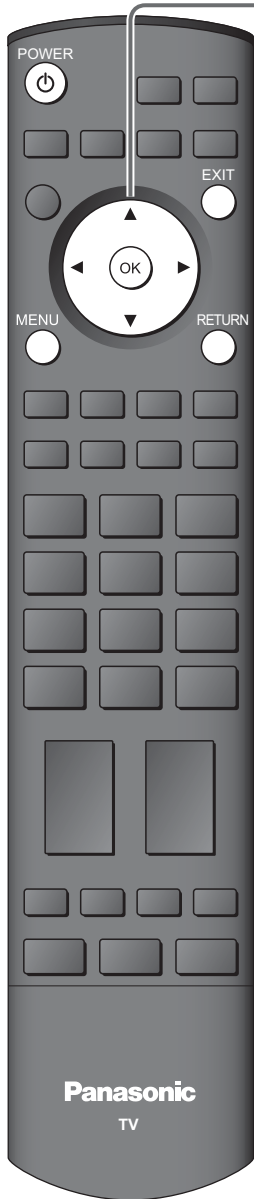
These steps are not necessary if the setup has been completed by your local dealer.



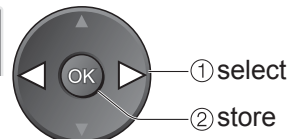
1 Plug the TV into mains socket and switch On



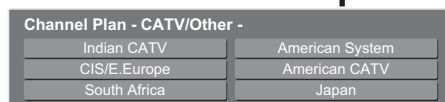
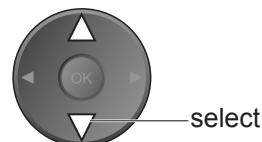
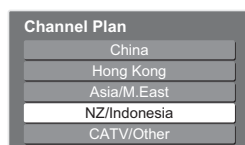
- You can now use the remote control to turn On the TV or turn the TV to standby mode. (Power LED: On)



2 Select your language



3 Select your area



- CATV/Other : Press **OK** → displayed sub menu



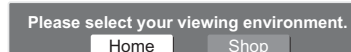
4 Start Auto Tuning



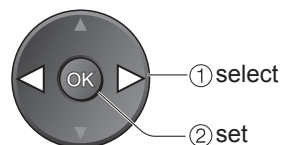
- Auto Tuning will start to search for TV programmes and store them. The sorted programme order depends upon the TV signal, the broadcasting system and reception conditions.



5 Select the picture setting



- "Shop" and "Home" are equal to "Dynamic" and "Standard" respectively - "Menu" in "Picture Menu" (p. 20)



Auto Tuning is now complete and your TV is ready for viewing.



- To edit programmes → Editing Programmes (p. 22)

Note

- If tuning have failed → "Auto Tuning" (p. 25).
- To initialize all settings → "Shipping Condition" (p. 27)
- If you turned the TV Off during Standby mode last time, the TV will be in Standby mode when you turn the TV On with Mains power On / Off switch.

Language Setting

You can change language for on-screen displays.

1 Display the menu

MENU

2 Select "Setup"

VIERA Main Menu

- VIERA Link
- Picture
- Sound
- Setup

3 Select "OSD Language"

Setup Menu 1/2

- Service List Edit
- Child Lock
- Tuning Menu
- Off Timer Off
- OSD Language Access
- Teletext TOP
- Teletext Character Set English
- Shipping Condition
- Input Labels Access

4 Select the language

OSD Language

English 中文 العربية فارسي Français

② access


① select

② access

① select

① change

② store



Using the On Screen Displays

Many features available on this TV can be accessed via the On Screen Display menu.

■ How to use remote control

MENU



Open the main menu



Move the cursor / select the menu



Move the cursor / adjust levels / select from a range of options



Access the menu / store settings after adjustments have been made or options have been set

RETURN



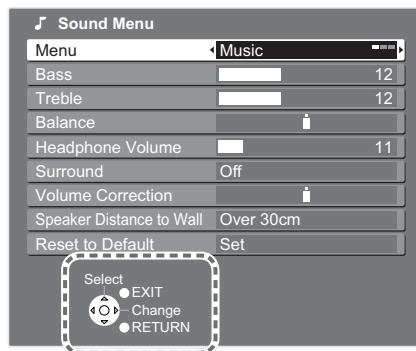
Return to the previous menu



Exit the menu system and return to the normal viewing screen

■ ON SCREEN HELP Instructions box

(example: Sound Menu)



On-screen operation guide will help you.

Watching TV

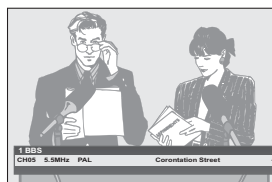
1

Turn power on

POWER



- Mains power On / Off switch should be On. (p. 7)
- If "Shop" is displayed on the top right of the screen, reset settings in "Shipping Condition" (p. 27), and select "Home" in "Auto Tuning" (p. 9).

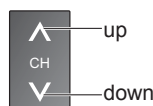


Information banner appears whenever you select a programme

● For details ➔ p. 13

2

Select a programme



- To select the two or three-digit programme number, e.g. 39

➔ 3 ➔ 9
(in a short time)

■ Select a programme using Information banner (p. 13)

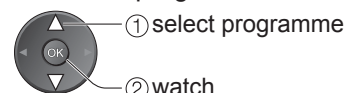
Possible to confirm the programme name before selecting programmes.

Display Information banner if it is not displayed

While the banner is displayed, select the programme



- Possible to set display timeout in "Banner Display Timeout" (p. 21).



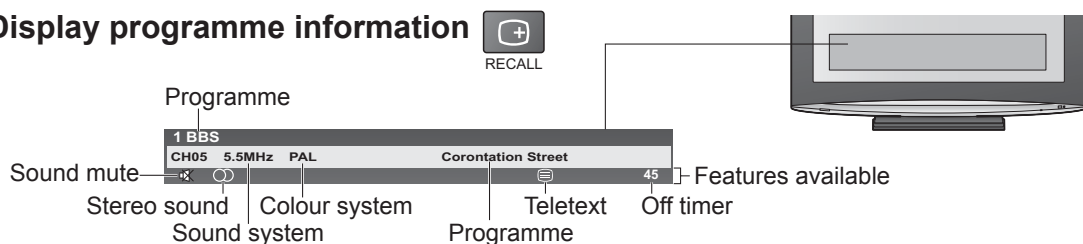
■ Other useful functions

| | | | |
|---|--|--------------------|--|
| Hold | Freeze / unfreeze picture | HOLD | |
| Display the selectable settings for the current programme | Check or change the current programme status instantly | OPTION | <ul style="list-style-type: none"> ● To change |
| | CH Colour Set Adjusts the colour density ➔ Picture Menu (p. 20) Teletext Character Set Sets the teletext language ➔ Setup Menu (p. 21) Note <ul style="list-style-type: none"> ● Also possible to change the settings in Menu list (p. 20 and p. 21). | | Volume Correction Adjusts volume of individual programme or input mode |
| Off Timer | Turn the TV off automatically after a fixed period | | |
| | Display the menu | Select "Setup" | Select "Off Timer" and set the time |
| | | | |
| | <ul style="list-style-type: none"> ● To cancel ➔ Set to "Off" or turn the TV off. ● To display the remaining time ➔ Information banner (p. 13) ● When the remaining time is within 3 minutes, the remaining time will flash on screen. | | |

Other useful functions

Display information banner

Display programme information



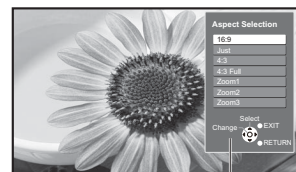
- To select another programme → [Up/Down Arrow] → [OK]
- To set display timeout → "Banner Display Timeout" (p. 21)
- Appears also when changing programme.
- Programme information is referred to teletext signal.
- To hide → [EXIT]

Change aspect ratio

Change the aspect ratio (p. 39)

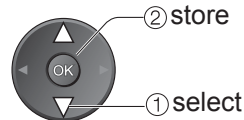


Enjoy viewing the picture at its optimum size and aspect.



Aspect Selection list

- To change the mode
 - ➔ Display Aspect Selection list [ASPECT] → During the list is displayed, select the mode
- To change the mode using the ASPECT button only
 - ➔ [ASPECT] (Press repeatedly until you reach the desired mode)



Note

- Only "16:9" and "4:3" are available in PC mode.
- Aspect mode can be memorized separately for each input mode.

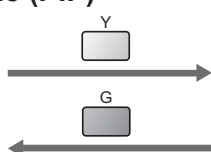
Watch TV, DVD, etc. in multi window

View in multi window (p. 40)



Enjoy viewing two images at once, such as a TV programme and a DVD.

Picture-in-Picture mode (PIP)



Picture-and-Picture mode (PAP)



Main screen Sub screen

- Remote control operations apply to the main screen.

Operations in multi window

- To exit multi window (return to the single-screen view with main screen) → [MULTI PIP]
- To change the layout, images, first show the colour bar → [RECALL] → [MULTI PIP]
 - To change the layout → [G] [Y]
 - To swap → [B]
 - To change the focus to sub window → [R]
 - To change the input mode of sub screen
 - ➔ Swap sub screen for main screen [B] → Change the input mode by the remote control (p. 14) → Swap again [B]

Watching Videos and DVDs

Connect the external equipment (VCRs, DVD equipment, etc.) and you can watch the input.

To connect the equipment (p. 8)

The Remote Control is capable of operating some functions of selected Panasonic external equipment.

1 Display the Input select menu

2 Select the input mode connected to the equipment

3 View
Displays the selected mode

Input Selection

| |
|-------|
| AV1 |
| AV2 |
| AV3 |
| AV4 |
| PC |
| HDMI1 |
| HDMI2 |
| HDMI3 |
| TV |

● You can also select the input using the AV button on the remote control or the top panel of the TV.
Press the button repeatedly until the desired input is selected.

● You can label or skip each input modes ➔ “Input Labels” (p. 28)










■ To return to TV





Note

- If the external equipment has an aspect adjustment function, set to “16:9”.
- For details, see the manual of the equipment or ask your local dealer.

Panasonic equipment connected to the TV can be directly operated with the remote control.

| | |
|---|--|
|  | VCR / DVD switch* Select VCR to operate Panasonic VCR or DVD equipment Select DVD to operate Panasonic DVD equipment or Player home theatre |
|  | Standby Set to Standby mode / Turn on |
|  | Play Playback videocassette / DVD |
|  | Stop Stop the operations |
|  | Rewind / Skip / Search VCR: Rewind, view the picture rapidly in reverse DVD: Skip to the previous track or title Press and hold to search backward |
|  | Fast-forward / Skip / Search VCR: Fast-forward, view the picture rapidly forward DVD: Skip to the next track or title Press and hold to search forward |
|  | Pause Pause / Restart DVD: Press and hold to play at slow speed |
|  | Programme Up / Down Select programme |
|  | Record Start recording |

***Setting your remote control to operate Panasonic VCR, DVD, etc.**

- ① Set the VCR / DVD switch to the appropriate position → 
- ② Press and hold  during the following operations
Enter the appropriate code for the equipment to be controlled, see table below



→ Press 

“VCR” position

| Equipment | Code |
|-----------|--------------|
| VCR | 10 (default) |
| DVD | 11 |

“DVD” position

| Equipment | Code |
|---------------------|--------------|
| DVD | 70 (default) |
| Player home theatre | 71 |

Note

- Confirm if the remote control works correctly after changing the code.
- The codes will be reset to default values if batteries are replaced.
- “DVD” means DVD player, DVD recorders and Recorder home theatre.
- Some operations may not be possible on some equipment models.

Viewing Teletext

You can enjoy teletext broadcasting, including news, weather forecasts and subtitles, if this service is provided by the broadcasters.

What is FASTEXT mode?


In FASTEXT mode, four differently coloured subjects are situated at the bottom of the screen. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information on the subjects shown.


What is TOP mode? (in case of TOP text broadcasting)

TOP is a particular improvement of the standard teletext service that results in an easier search and effective guide.

- Fast overview of the teletext information available
- Easy to use step-by-step selection of the topical subject
- Page status information at the bottom of the screen

Available page up / down →  

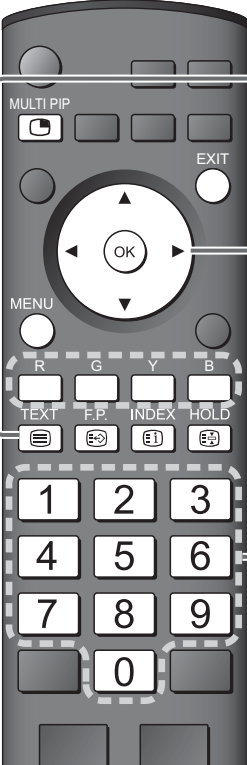
To select among subject blocks → 

To select next subject within the subject block
(After the last subject, it moves to the next subject block.) → 

What is List mode?

In List mode, four differently coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory. ("Store frequently viewed pages", p. 17)

■ To change mode → "Teletext" in Setup Menu (p. 21)



1 Switch to Teletext

TEXT ● Displays Index (content varies depending on the broadcasters)

F.P. ● Pressing this button while watching TV programme directly accesses to the favorite page stored in "blue".


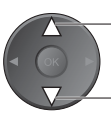


Sub page number << 01 02 03 04 05 06 07 >>

Current page number **P100** 17:51 28 Feb Time / date

TELETEXT INFORMATION



Colour bar



2 Select the page (up to page 899)

 or
  or
  or
 




 (Corresponds to the colour bar)

As the blue bar is displayed

■ To adjust contrast →  (Press twice) → 

■ To return to TV →  or 

■ Using teletext conveniently

| | | | |
|---------------------|--|---|--|
| Reveal hidden data | Reveal hidden words e.g. quiz page answers MENU →  ● Re-hide →  | | |
| FULL / TOP / BOTTOM | MENU →  | <div style="display: flex; align-items: center; justify-content: space-around;"> <div style="text-align: center;"> P100 Broadcast (Expand the TOP half) </div> <div>→</div> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 5px;">(TOP)</div> <div style="border: 1px solid black; padding: 5px;">(BOTTOM)</div> </div> <div>→</div> <div style="text-align: center;"> P100 Broadcast (Normal (FULL)) </div> </div> | |

HOLD**Stop automatic updating**

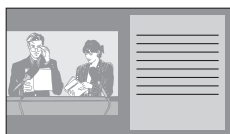
(If you wish to hold the current page without updating)



■ To resume

**INDEX****Return to the main index page****Call up a favourite pages****View a favourite page stored**

- Call up the page stored in "blue".
- Factory setting is "P103".

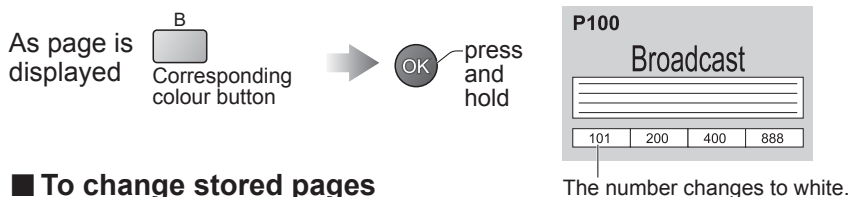
View in multi window**Watch TV and Teletext in two windows at once**

- Operations can be made only in Teletext screen.

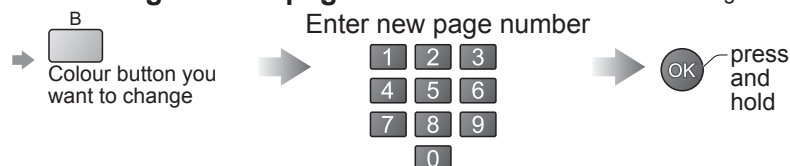
■ To exit multi window

**Store frequently viewed pages****Store frequently viewed pages in the colour bar**

(List mode only)



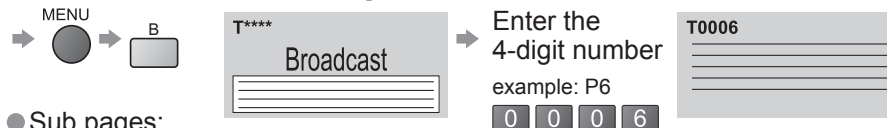
■ To change stored pages

**View sub page****View sub page (Only when teletext is more than one page)**

<<01 02 03 04 05

Appears at upper-left corner of the screen

■ To view specific sub page

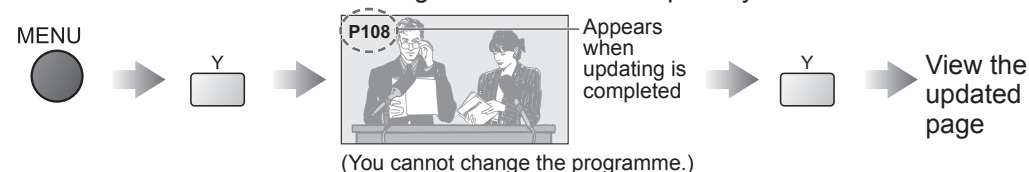


- Sub pages:
The number of sub pages varies depending on the broadcasters (up to 79 pages).
It may take some time for searching, during which time you can watch TV.

Watch TV while waiting for update**View the TV picture while searching for a teletext page**

Teletext automatically updates itself when new information becomes available.

Changes to TV screen temporarily






(You cannot change the programme.)

- The news page provides a function that indicates arrival of latest news ("News Flash").


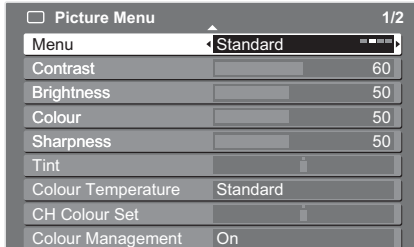
How to Use Menu Functions

Various menus allow you to make settings for the picture, sound, and other functions.


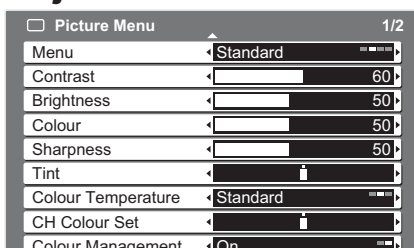


- 1 Display the menu**

 - Displays the functions that can be set (varies according to the input signal)
- 2 Select the menu**



(example: Picture Menu)


- 3 Select the item**


(example: Picture Menu)


- 4 Adjust or select**


(example: Picture Menu)



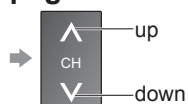
■ To return to TV at any time



■ To return to the previous screen



■ To change menu pages



■ Choose from among alternatives

Number and positions of alternatives



Changed

■ Adjust using the slide bar



Moved

■ Go to the next screen



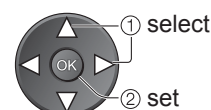
Displays the next screen

■ Enter characters by free input menu

You can enter names or numbers freely for some items.



Set characters

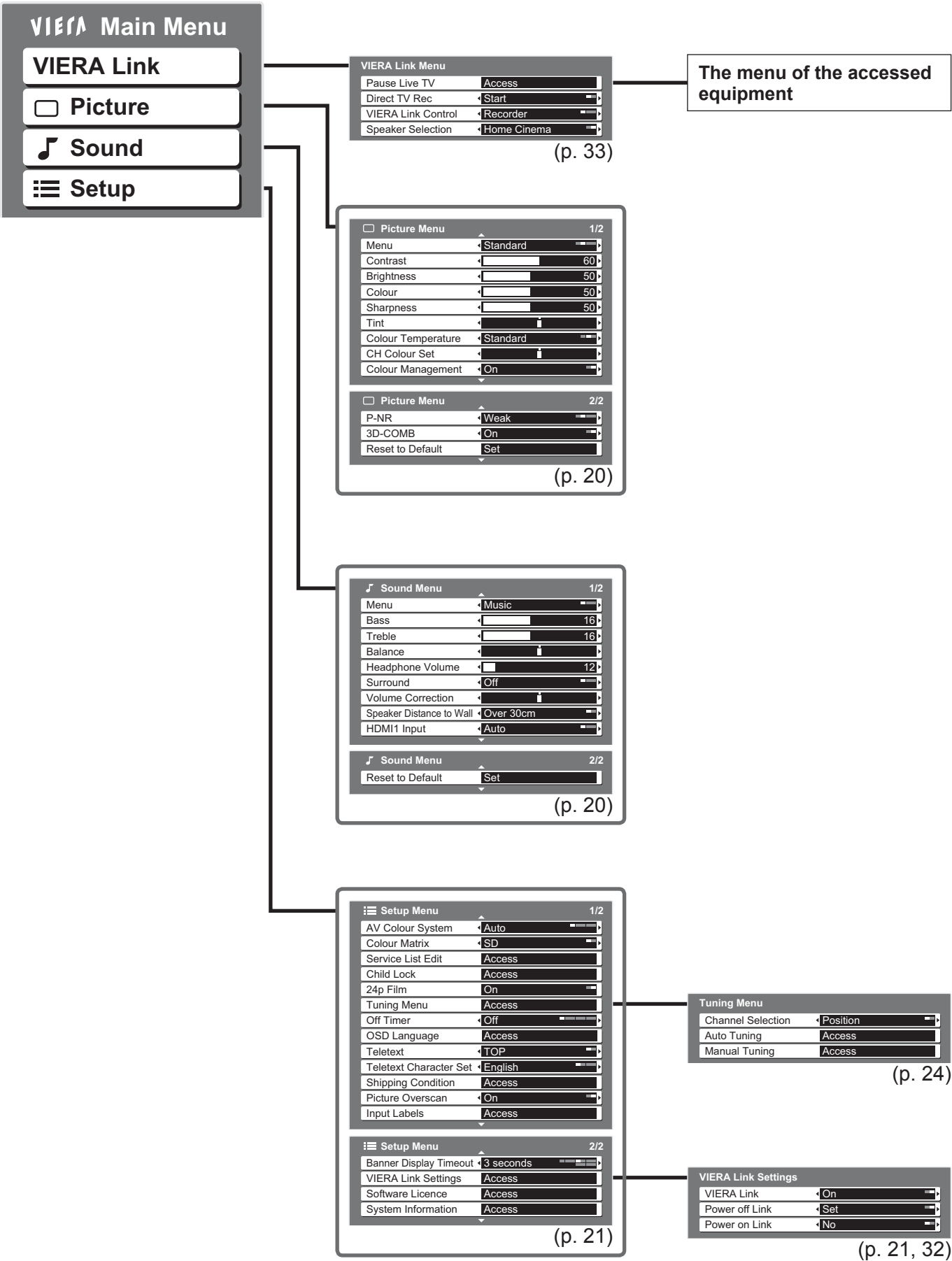


Store

RETURN



■ Overview



● Depending on the received signals, available items are varied.

● How to Use Menu Functions
(picture, sound quality, etc.)

Advanced

How to Use Menu Functions

■ Menu list

| Menu | Item | Adjustments / Configurations (alternatives) |
|------------|---|--|
| VIERA Link | Pause Live TV | Controls the connected equipment with VIERA Link function, and enables various convenient recording, playback, etc. (p. 33 - 35) ● You can also access VIERA Link Menu directly using the VIERA Link button on the remote control. |
| | Direct TV Rec | |
| | VIERA Link Control | |
| | Speaker Selection | |
| Picture | Menu | Basic picture mode (Dynamic / Standard / Cinema / Eco) Dynamic : Provides enhanced picture contrast and sharpness when viewing in a bright room Standard : Recommended for viewing under normal ambient room lighting conditions Cinema : For watching movies in a darkened room producing a cinema-like picture Eco : Adjusts picture settings automatically dependent on ambient lighting conditions ● Set for each input signal |
| | Contrast, Brightness, Colour, Sharpness | Increases or decreases the levels of these options according to your personal preference |
| | Tint | With an NTSC signal source connected to the TV, the picture hue can be adjusted to suit your taste ● For NTSC or Component / HDMI input signal reception only |
| | Colour Temperature | Allows you to set the overall colour tone of the picture (Cool / Standard / Warm) |
| | CH Colour Set | Colour density varying between broadcast programmes can be adjusted to three levels for each reception programme ● Select the programme you want to adjust and set this function |
| | Colour Management | Automatically adjusts colours to vivid ones (Off / On) ● Not valid on PC signal |
| | P-NR | Picture Noise Reduction Automatically reduces unwanted picture noise and flicker noise in the contoured parts of a picture (Off / Weak / Mid / Strong) ● Not valid on PC signal |
| | 3D-COMB | Occasionally, whilst viewing still or slow moving pictures, colour patterning may be seen Set to "On" to display sharper and more accurate colours (Off / On) ● For PAL or NTSC signal reception only ● Not valid on S-Video, Component, PC, HDMI and SD Card |
| | Reset to Default | Press the OK button to reset Picture Menu on all inputs to default settings. |
| Sound | Menu | Basic sound mode (Music / News / Cinema) ● Set for each input signal |
| | Bass | Increases or decreases level to enhance or minimise lower, deeper sound output |
| | Treble | Increases or decreases level to enhance or minimise sharper, higher sound output |
| | Balance | Adjusts volume level of right and left speakers |
| | Headphone Volume | Adjusts the volume of the headphones |
| | Surround | Surround sound settings (Off / Simulated Surround / SRS TruSurround XT) Simulated Surround: Provides a dynamic enhancer to simulate improved spatial effects SRS TruSurround XT: SRS TruSurround XT® creates a high quality surround sound effect using just two speakers from the source which can output surround encoded signals ● Switching is also possible by the Surround button on the remote control (p. 7) |
| | Volume Correction | Adjusts volume of individual programme or input mode |
| | Speaker Distance to Wall | Adjusts the low frequency sound (Over 30cm / Up to 30cm) ● If the back space between the TV and wall is over 30 cm, "Over 30cm" is recommended. ● If the back space between the TV and wall is within 30 cm, "Up to 30cm" is recommended. |
| | HDMI1 / 3 Input | Select to fit the input signal (Auto / Digital / Analogue) (p. 41) Auto: Automatic detection of digital or analogue sound source Digital: HDMI cable connection Analogue: HDMI-DVI adapter cable connection ● HDMI input mode only ● HDMI2 terminal is for digital signal only ● No setting for HDMI2 available |
| | Reset to Default | Press the OK button to reset the present Sound Menu to the default settings |

■ Menu list

| Menu | Item | Adjustments / Configurations (alternatives) |
|-------|-------------------------------|---|
| Setup | AV Colour System | Selects optional colour system based on video signals in AV mode (Auto / PAL / SECAM / NTSC4.43 / NTSC3.58) |
| | Colour Matrix | Available only with 480p or 576p input signals in a natural colour from digital equipment connected to AV1 / AV2 Component or HDMI1 / HDMI2 / HDMI3 terminals Select SD or HD to adjust suitable colour parameters for SD (standard definition) or HD (high definition) ● SD: Input signal is a normal TV system ● HD: Input signal is a High-Definition system |
| | Service List Edit | Skips the unwanted programmes or edits programmes (p. 23) |
| | Child Lock | Locks a programme / AV input to prevent access to it (p. 26) |
| | 24p Film | Displays moving pictures smoothly when receiving 24p signals (Off / On) |
| | Tuning Menu | Channel Selection Selects the most easily viewed programme selection method (Position / Direct) (p. 25) |
| | | Auto Tuning Automatically sets the programmes received in the area (p. 25) |
| | | Manual Tuning Sets the programmes manually (p. 25) |
| | Off Timer | Sets the time the TV automatically turns Off (Off / 15 / 30 / 45 / 60 / 75 / 90 minutes) |
| | OSD Language | Changes language for on-screen displays |
| | Teletext | Teletext display mode (TOP (FASTEXT) / List) (p. 16) |
| | Teletext Character Set | Select teletext language (English / CIS / E.Europe / Persian) |
| | Shipping Condition | Resets all settings, for example, when moving house (p. 27) |
| | Picture Overscan | Selects the screen area displaying the image (Off / On) On : Enlarged the image to hide the edge of the image. Off : Displayed the image in the original size. ● Set to "On" if noise is generated on the edge of the screen. ● This function is available when aspect is set to 16:9. ● This function can be memorized separately for SD (Standard definition) and HD (High definition) signals. |
| | Input Labels | Labels or skips each input terminals (p. 28) |
| | Banner Display Timeout | Sets how long the information banner (p. 13) stays on screen ● 0 (No display) to 10 sec. in 1-sec. increments |
| | VIERA Link Settings | VIERA Link Sets to use VIERA Link functions (Off / On) (p. 32) |
| | | Power off Link Sets to use Power off Link function (No / Set) (p. 32) |
| | | Power on Link Sets to use Power on Link function (No / Set) (p. 32) |
| | Software Licence | Displays the software licence information |
| | System Information | Displays the system information of this TV |

● A different menu will be displayed while PC or SD Card is used. (p. 29 and p. 31)

● Only available items can be selected.

● How to Use Menu Functions
(picture, sound quality, etc.)

Advanced

Editing Programmes

You can skip unwanted programmes or edit programmes.

1 Display the menu

MENU

2 Select "Setup"

VIERA Main Menu

- VIERA Link
- Picture
- Sound
- Setup

3 Select "Service List Edit"

Setup Menu 1/2

| | |
|------------------------|---------|
| Service List Edit | Access |
| Child Lock | |
| Tuning Menu | |
| Off Timer | Off |
| OSD Language | |
| Teletext | TOP |
| Teletext Character Set | English |
| Shipping Condition | |
| Input | Labels |

4 Set

■ To return to TV

EXIT

EXIT

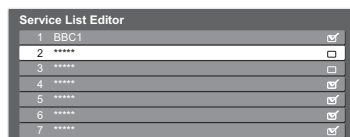
Skip
unwanted
programmes

Edit
programmes
(Change name,
Move)

Service List
Edit

You can hide unwanted services. The deleted services cannot be displayed except in this function. Use this function to skip unwanted programmes.

Select a service and add / delete



- ☒ :add
☐ :delete (skip)

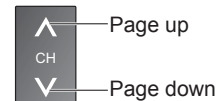
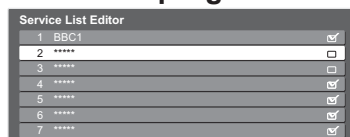
● To retune each programme (Manual Tuning)

➔ (p. 25)

You can change the programme name and programme position.

● If a VCR is connected only with the RF cable, edit "VCR".

① Select the programme to edit



Programme position
Name



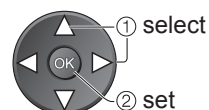
② Edit

■ To change the name displayed when selecting programmes

Select
"Rename"



Set characters



(maximum: five characters)

Store



■ To move the programme position

Select new position



Store



Tuning Programmes

You can retune all the TV programmes when moving house or search for new services which may have recently started broadcasting.

1 Display the menu

MENU

2 Select "Setup"

VIERA Main Menu

- VIERA Link
- Picture
- Sound
- Setup

3 Select "Tuning Menu"

Setup Menu 1/2

- Service List Edit
- Child Lock
- Tuning Menu Access
- Off Timer Off
- OSD Language
- Teletext TOP
- Teletext Character Set English
- Shipping Condition
- Input Labels Access

4 Select a function

Tuning Menu

- Channel Selection Position
- Auto Tuning Access
- Manual Tuning Access

5 Set

■ To return to TV

EXIT

Set all
programmes
automatically

Channel
Selection

Auto Tuning

Set
programme
manually

Manual
Tuning

Automatically retune all programmes received in the area.

- If a Child Lock PIN number (p. 26) has been set, it must be entered.

① **Select the Channel Selection method (Position / Direct)**

■ **Position**

Example

| Programme Number | Channel Display | Received Programme |
|------------------|-----------------|--------------------|
| 1 | 2 | 2 |
| 2 | 4 | 4 |
| 3 | 6 | 6 |
| 4 | 8 | 8 |
| 5 | 10 | 10 |
| 6 | 12 | 12 |
| 7 | 14 | 14 |
| 8 | 16 | 16 |
| 9 | 18 | 18 |
| 10 | 20 | 20 |

When Channel Selection is on Position, and Auto Tuning is performed, the TV memorises the programmes tuned in order from Programme Number 1. During Position mode various reception programmes can be viewed.

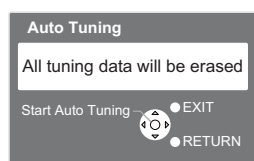
■ **Direct**

Example

| Programme Number | Channel Display | Received Programme |
|------------------|-----------------|--------------------|
| 1 | — | — |
| 2 | 2 | 2 |
| 3 | — | — |
| 4 | 4 | 4 |
| 5 | — | — |
| 6 | 6 | 6 |
| 7 | — | — |
| 8 | 8 | 8 |
| 9 | — | — |
| 10 | 10 | 10 |

When Channel Selection is on Direct, and Auto Tuning is performed, the TV memorises the Programme Number which is the same as the programme tuned. The Channel Display numbers for the broadcast stations in each region are listed on p. 38.

② **Start Auto Tuning**
Access “Auto Tuning”



Settings are made automatically



- All the previous tuning settings are erased.
- When the operation is completed, the programme at programme position “1” will be displayed.
- If tuning has not been done completely → “Manual Tuning”

■ **For Auto Tuning, using the buttons on the side of the TV (p. 7)**

- ① Press repeatedly until “Auto Tuning” appears

F

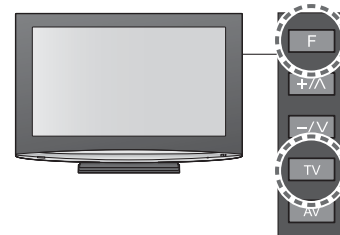
- ② Access “Auto Tuning”

TV

- ③ Start “Auto Tuning”

TV

● To return to TV → F



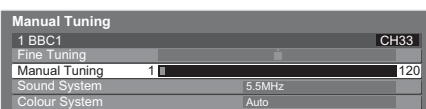
■ **Fine Tuning**

Use to make small adjustments to the tuning of an individual programme (affected by weather conditions, etc.)

■ **Manual Tuning**

Set programme manually after Auto Tuning.

- Set Sound System and Colour System, and then perform this function. Normally set Colour System “Auto”.
- If a VCR is connected only with the RF cable, select programme position “0”.



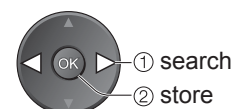
Select the programme position



Select the programme



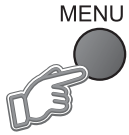
Search and store




Control Programme Audience

You can lock specific programmes / AV input terminals and control who watches them.
(When the locked programme / input is selected, a message appears; by entering the PIN number, you can watch it.)

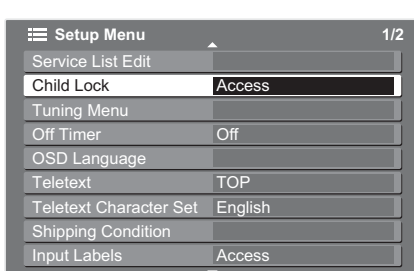
1

Display the menu



2

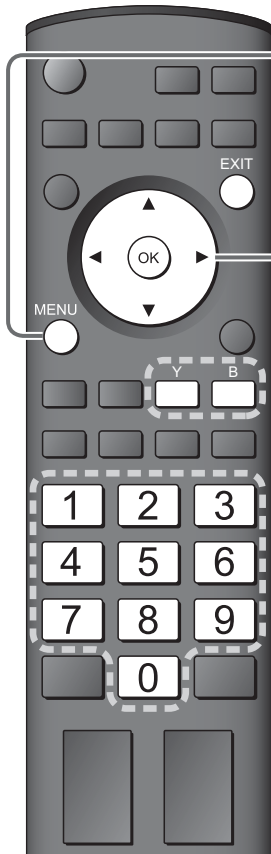
Select "Setup"


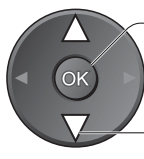
3

Select "Child Lock"


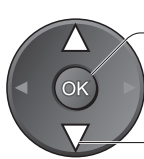
4

Set






② access
① select



② access
① select

Control programme audience

Child Lock

① **Enter the PIN number (4 digits)**

Child Lock-PIN Entry
Please enter new PIN
PIN

1

2

3

4

5

6

7

8

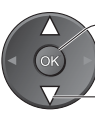
9

0

- Enter the PIN number twice at first setting.
- Make a note of the PIN number in case you forget it.

② **Select "Child Lock List"**


Child Lock
Change PIN
Child Lock List



② access
① select

③ **Select the programme / input to be locked**

| Name | Type | Lock |
|---------|------|------|
| 1 BBC | TV | 🔒 |
| 7 THREE | TV | |
| 14 E4 | TV | |
| 70 CBBC | TV | |
| 72 Nwk | TV | 🔒 |
| 80 BBCi | TV | |
| AV1 | AV | |
| AV2 | AV | |



① select
② set

- To cancel
➡ Select the locked programme / input
➡ OK
- To lock all ➡ Y
- To cancel all locks ➡ B

Appears when the programme / input is locked

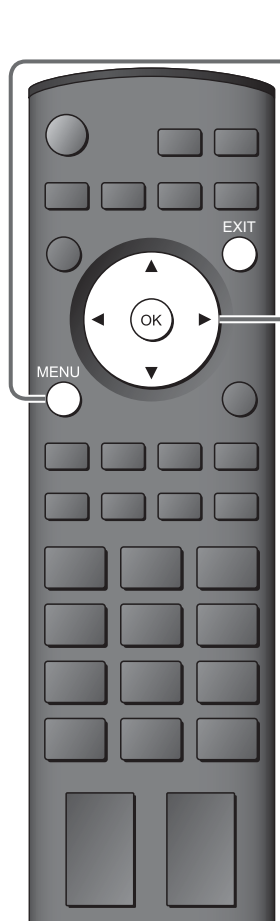
■ **To change the PIN number**
Select "Change PIN" in ② and enter a new PIN number twice.

Note

- Setting "Shipping Condition" (p. 27) erases the PIN number and all settings.

Restore Settings

Resets the TV to its original condition, i.e. no programmes tuned in.
All settings (programmes, picture, sound quality, etc.) are reset.



1 Display the menu
MENU

2 Select "Setup"
VIERA Main Menu
VIERA Link
Picture
Sound
Setup

3 Select "Shipping Condition"
Setup Menu 1/2
Service List Edit
Child Lock
Tuning Menu
Off Timer Off
OSD Language
Teletext TOP
Teletext Character Set English
Shipping Condition Access
Input Labels Access

4 Set

■ To return to TV
EXIT

② access
① select

② access
① select

Restore Settings

Shipping Condition

① Check the message and initialise

Shipping Condition

All tuning data will be erased
Are you sure?
Are you sure?

Confirm

EXIT
RETURN

OK

② Follow the on-screen instructions

- "Auto Tuning" will automatically start when Mains power On / Off switch is next turned On. (p. 9)

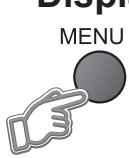
■ To re-tune TV programmes only, e.g. after moving house
➔ "Auto Tuning" (p. 25)

Input Labels

For easier identification and selection of the input mode, you can label each input terminals or skip terminal that is not connected to any equipment.
(To select the input mode ➔ p. 14)


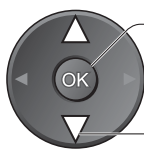
1

Display the menu



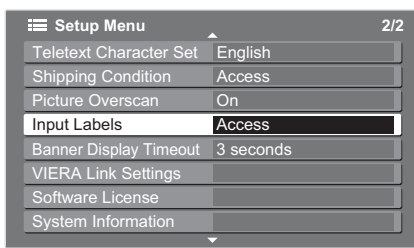
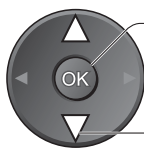
2

Select "Setup"

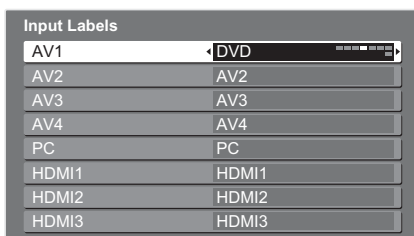

3

Select "Input Labels"


4

Select a input terminal and set

■ To return to TV

➔ EXIT



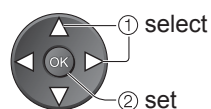
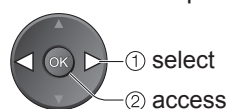
The labels you set will be displayed in "Input Selection" menu (p. 14) or banner.
● If "Skip" is selected, you cannot select the mode.

■ User Input

You can name each input terminals freely.

Select "User Input"

Set characters



Store
RETURN




(maximum: ten characters)

Displaying PC Screen on TV

The screen of the PC connected to the TV can be displayed on the TV.
You can also listen to PC sound with the audio cable connected. To connect PC (p. 36)

1

Select the external input



2

Select "PC"

Input Selection

AV1

AV2

AV3

AV4

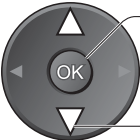
PC

HDMI1

HDMI2

HDMI3

TV



② access

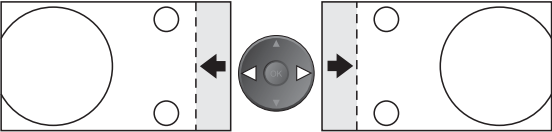
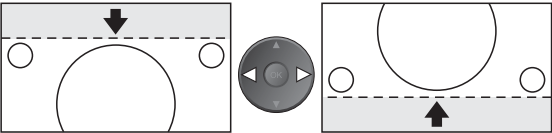
① select

● Corresponding signals (p. 42)

● If "H-freq." or "V-freq." is shown in red, the signals may not be supported.

■ To return to TV
→ TV

■ PC menu setting (changed as desired)
● To make settings → "How to Use Menu Functions" ① to ④ (p. 18)

| Menu | Item | | Adjustments / Configurations (options) | |
|---------|----------------------|------------------|--|--|
| Picture | Advanced PC Settings | R-Gain | Adjusts the white balance for red areas | |
| | | G-Gain | Adjusts the white balance for green areas | |
| | | B-Gain | Adjusts the white balance for blue areas | |
| | | Gamma | (2.0 / 2.2 / 2.5) | |
| | | Reset to Default | Press the OK button to reset to the default settings | |
| Setup | PC Setup | Input Resolution | Switches to a wide view ● VGA (640 × 480 pixels), WVGA (852 × 480 pixels), XGA (1,024 × 768 pixels), WXGA (1,366 × 768 pixels) ● Options change depending on signals | |
| | | Clock | Set to the minimum level if noise occurs | |
| | | H-pos | Adjusts horizontal position |  |
| | | V-pos | Adjusts vertical position |  |
| | | Clock Phase | Eliminates flicker and distortion ● Adjust after Clock adjustment | ● Set to the minimum level if noise occurs |
| | | Sync | PC sync signal type (H & V / On G) ● H & V : Horizontal and Vertical sync from your PC (Most common sync format) On G : Sync on Green sync from your PC | |
| | | Reset to Default | Press the OK button to reset to the default settings | |

● Other items → p. 20 and p. 21

Viewing from SD Card

The still images recorded by the digital camera will be displayed.



1

Insert the SD Card

2

Enter SD mode (Photo View Mode)



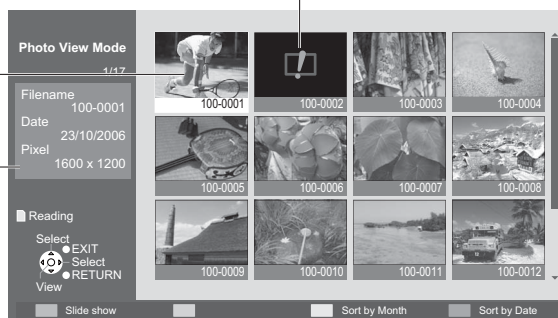
- All photos in SD Card are displayed by thumbnail.

3

Select the photo to be viewed

Error display
(images that could not be loaded, etc.)

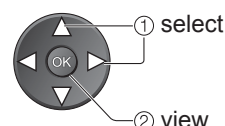
Selected photo



(Thumbnail screen)

Selected photo information is displayed

- The maximum number of characters for Filename is 8.
- The photo without record of the date is shown "*/*/****".



Slide show



- For details, see p. 31



To return to thumbnail screen



To return to TV



To sort by date or month recorded

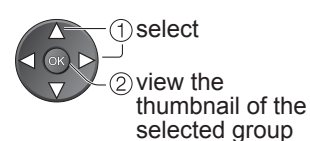
(Sort by Month / Sort by Date)

Display the thumbnail grouped by the same date or the same month

Y (Sort by Month)

B (Sort by Date)

Select the group to be viewed



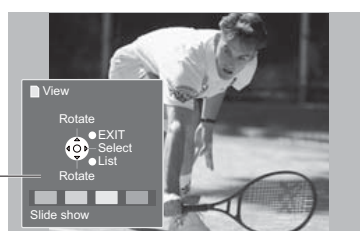
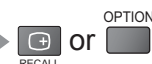
Note

- The group of the photos without record of the date is shown as "Unknown".

4

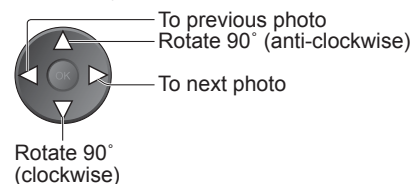
View

To display the operation guide



Operation guide

Displayed one at a time



Caution

- During the operation, no signals are output from the monitor output terminals.

(Photos)

SD Card

● For details on SD Cards (p. 41)

■ To insert

Label surface

Push until a click is heard

■ To remove

Press the centre of the card

Slide show

■ Start Slide show (operate in step ③ or ④)

① Select the photo for the first view

② Start Slide show

➔

● To pause ➔

● To return to Single view ➔

Note

● Slide show is done within the same group if started from the view of the group.

■ Slide show settings (operate in step ③ or ④)

① Display the menu

② Select "Card Setup Menu"

③ Select the functions and set

➔

VIERA Main Menu

- Picture
- Card Setup Menu

② access

① select

➔

Card Setup Menu

- Interval: 5 seconds
- Repeat: On

② set

① select

● "Picture Menu" (p. 20)

| Menu | Item | Adjustments / Configurations (alternatives) |
|-----------------|----------|---|
| Card Setup Menu | Interval | Select slide show interval (5 / 10 / 15 / 30 / 60 / 90 / 120 seconds) |
| | Repeat | Slide show repeat (Off / On) |

Cautions in handling SD Card

- Do not remove the card while the TV is accessing data (this can damage card or TV).
- Do not touch the pins on the back of the card.
- Do not subject the card to a high pressure or impact.
- Insert the card in the correct direction (otherwise, card may be damaged).
- Electrical interference, static electricity, or erroneous operation may damage the data or card.
- Back up the recorded data at regular intervals in case of deteriorated or damaged data or erratic operation of the TV. (Panasonic is not liable for any deterioration or damage of recorded data.)

On screen messages

| Message | Meaning / Action |
|--------------------------|---|
| Cannot read file | ▶ <ul style="list-style-type: none">● The file is broken or unreadable.● The TV does not support the format. (For the applicable formats and data, see p. 41.) |
| Is SD Card in? | ▶ <ul style="list-style-type: none">● Insert a SD Card. |
| No valid file to play | ▶ <ul style="list-style-type: none">● The card has no data. |
| Over 9999 pictures found | ▶ <ul style="list-style-type: none">● Maximum valid number of photos is 9,999. |

● Viewing from SD Card (Photos)

Advanced

31

VIERA Link “HDAVI Control™”*

*Enjoy additional HDMI Inter-Operability with Panasonic products which have “HDAVI Control” function. This TV supports “HDAVI Control 3” function.

Connections to the equipment (DIGA Recorder, HD Video Camera, Player theatre, Amplifier, etc.) with HDMI cable allow you to interface them automatically.

These features are limited to models incorporating “HDAVI Control” and “VIERA Link”.

- Some functions are not available depending on the equipment’s version of HDAVI Control. Please confirm the connected equipment’s version of HDAVI Control.
- VIERA Link “HDAVI Control”, based on the control functions provided by HDMI which is an industry standard known as HDMI CEC (Consumer Electronics Control), is a unique function that we have developed and added. As such, its operation with other manufacturers’ equipment that supports HDMI CEC cannot be guaranteed.

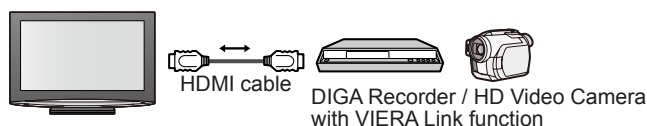
Please refer to individual manuals for other manufacturers’ equipment supporting VIERA Link function. About applicable Panasonic equipment, consult your local Panasonic dealer.

Summary of VIERA Link functions

| | | | |
|--|-----------------|-----------------------|-------------------|
| ● Easy playback | ● Power on link | ● Power off link | ● Speaker control |
| ● Control the menu of the connected equipment by VIERA remote control (Available with the equipment which has “HDAVI Control 2” or “HDAVI Control 3” function.) | | | |
| ● Pause Live TV programme (Available with the equipment which has “HDAVI Control 3” function.) | | ● Direct TV Recording | |

Connections

Read the manual of the equipment, too.

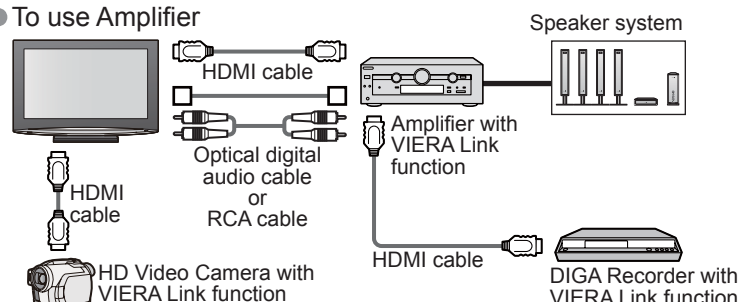


- **HDMI cable**
Use fully wired HDMI compliant cable.
Non-HDMI-compliant cables cannot be utilized.
Recommended Panasonic’s HDMI cable part number:
 • RP-CDHG10 (1.0 m) • RP-CDHG30 (3.0 m)
 • RP-CDHG15 (1.5 m) • RP-CDHG50 (5.0 m)
 • RP-CDHG20 (2.0 m)

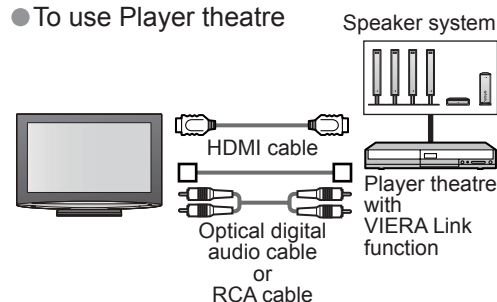
- Connect the equipment supporting VIERA Link to the TV’s HDMI1, HDMI2 or HDMI3 terminals via fully wired HDMI cables.

For Speaker control (Home Cinema)

- **To use Amplifier**



- **To use Player theatre**



Preparations

- Connect the equipment supporting VIERA Link.
- Set up the connected equipment. Read the manual of the equipment.
- For optimal recording, the settings of the recorder might be required. For details, read the manual of the recorder.
- Set VIERA Link On in Setup Menu ➔ “VIERA Link” (p. 21)
- Set up the TV ➔ **After connection, turn the equipment on and then switch the TV on. Select the input mode to HDMI1, HDMI2 or HDMI3 (p. 14), and make sure that an image is displayed correctly.**
This setup should be done each time when the following conditions occur:
 • for the first time / • when adding or reconnecting equipment / • when changing setup

Features available

Easy playback

Automatic Input switching - When the connected equipment is operated, input mode is switched automatically. When it is stopped operating, input mode is not returned.

Power on link

Set Power on Link “Set” in Setup Menu to use this function

➔ “Power on Link” (p. 18-19, 21)

When the connected equipment starts playback or direct navigator / function menu for the equipment are activated, the TV is automatically turned on. (Only when TV is in Standby mode.)

Power off link

Set Power off Link “Set” in Setup Menu to use this function

➔ “Power off Link” (p. 18-19, 21)

When TV is set to Standby mode, the connected equipment is also automatically set to Standby.

- This function will work even if the TV enters standby mode automatically by Off Timer function or auto power standby function.

- The TV remains on even if the “VIERA Link” compatible equipment is turned off.

■ Features available (Using VIERA Link Menu)

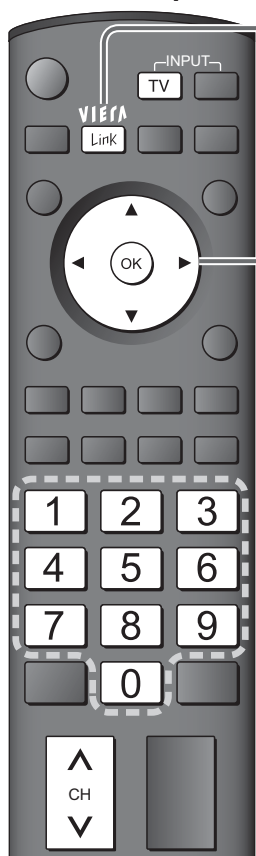
Pause Live TV programme (HDAVI Control 3 and Recorder with HDD)

Pause Live TV

You can pause the live TV programme and resume later.

- This function is available with DIGA Recorder which has HDD and “HDAVI Control 3” function.
- If you cannot operate, check the settings and the equipment → “Preparations” (p. 32)
- Available conditions:
 - when watching TV programme
 - when watching the input from DIGA Recorder

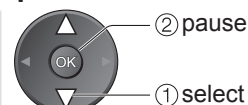
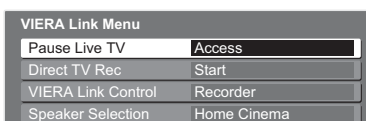
Access and pause the live TV programme



① Display “VIERA Link Menu”



② Select “Pause Live TV” and pause

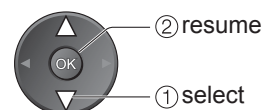


- Live TV programme is recorded on HDD from where it was paused.

■ To resume (stop pause)

Select “Pause Live TV” and access

- About the operations after resuming, read the manual of the equipment.



■ To return to Live TV

(cancel pause or resumed playback)

→ (change the input mode) or



(change the programme)

- If you cancel pause or resumed playback, the recorded programme will be deleted from HDD.

Direct TV Recording - What you see is What you record (HDAVI Control 3)

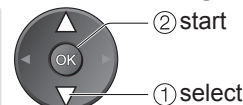
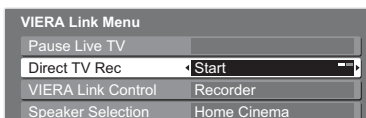
Direct TV Rec



① Display “VIERA Link Menu”

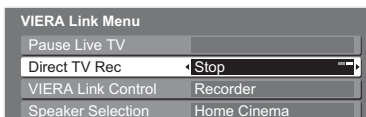


② Select “Direct TV Rec” and start recording



■ To stop recording

Select “Stop” in “Direct TV Rec” and access



VIERA Link “HDAVI Control™”

■ Features available (Using VIERA Link Menu)

You can control some functions of the connected equipment with this TV remote control (point the remote control at the TV's signal receiver).

- This function is available with the equipment which has “HDAVI Control 2” or “HDAVI Control 3” function.
- If you cannot operate, check the settings and the equipment → “Preparations” (p. 32)

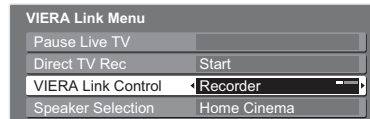
Access and operate the menu of the equipment



① Display “VIERA Link Menu”

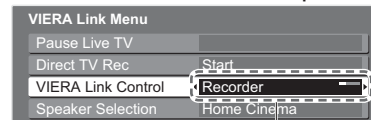


② Select “VIERA Link Control”



③ Select the equipment you want to access

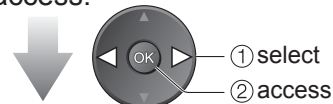
- “Home Cinema” means Player theatre, Recorder theatre and Amplifier.



Recorder / Player / Home Cinema / Video Camera

The type of the connected equipment is displayed.

Select the type of the equipment and access.



The menu of the accessed equipment
(Input mode will be changed automatically)

④ Operate the menu of the equipment

- Available VIERA remote control buttons (depending on the connected equipment):

| | |
|--|---|
| | Move the cursor / select the menu |
| | Move the cursor / access / adjust |
| | Store / set / access |
| | Return to the previous menu |
| | Exit the menu |
| | Display the operation guide for the equipment / The same functions with the OPTION button of the equipment |
| | Access when the key words are displayed on colour bar |

- About the operations for the equipment, read the manual of the equipment.

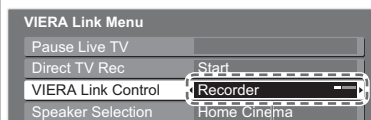
Control the menu of the connected equipment by VIERA remote control

(HDAVI Control 2)
(HDAVI Control 3)

VIERA Link Control

■ If you access the invalid equipment

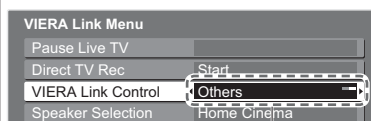
When the equipment with “HDAVI Control” function is connected



Recorder / Player / Home Cinema / Video Camera

The type of the connected equipment is displayed. But you cannot access it. Use its own remote control to operate the equipment.

When the equipment of other types or manufacturers is connected



Others


“Others” is displayed. You cannot access it. Use its own remote control to operate the equipment.

■ Features available (Using VIERA Link Menu)

You can control the theatre speaker with this TV remote control (point the remote control at the TV's signal receiver).

- This function is available with the Amplifier or Player theatre which has "HDAVI Control" function.
- If you cannot operate, check the settings and the equipment → "Preparations" (p. 32)

Access and control the speaker volume



① Display "VIERA Link Menu"



② Select "Speaker Selection"

③ Set to "Home Cinema" or "TV"

VIERA Link Menu

| | |
|--------------------|-------------|
| Pause Live TV | |
| Direct TV Rec | Start |
| VIERA Link Control | Recorder |
| Speaker Selection | Home Cinema |

Home Cinema
Amplifier or Player theatre will be automatically turned on if it is in Standby mode and the sound is from theatre speakers connected to the equipment.

- Volume up / down → 
- Mute → 
- The sound of TV speakers is mute.
- When the equipment is turned off, TV speakers will be active.

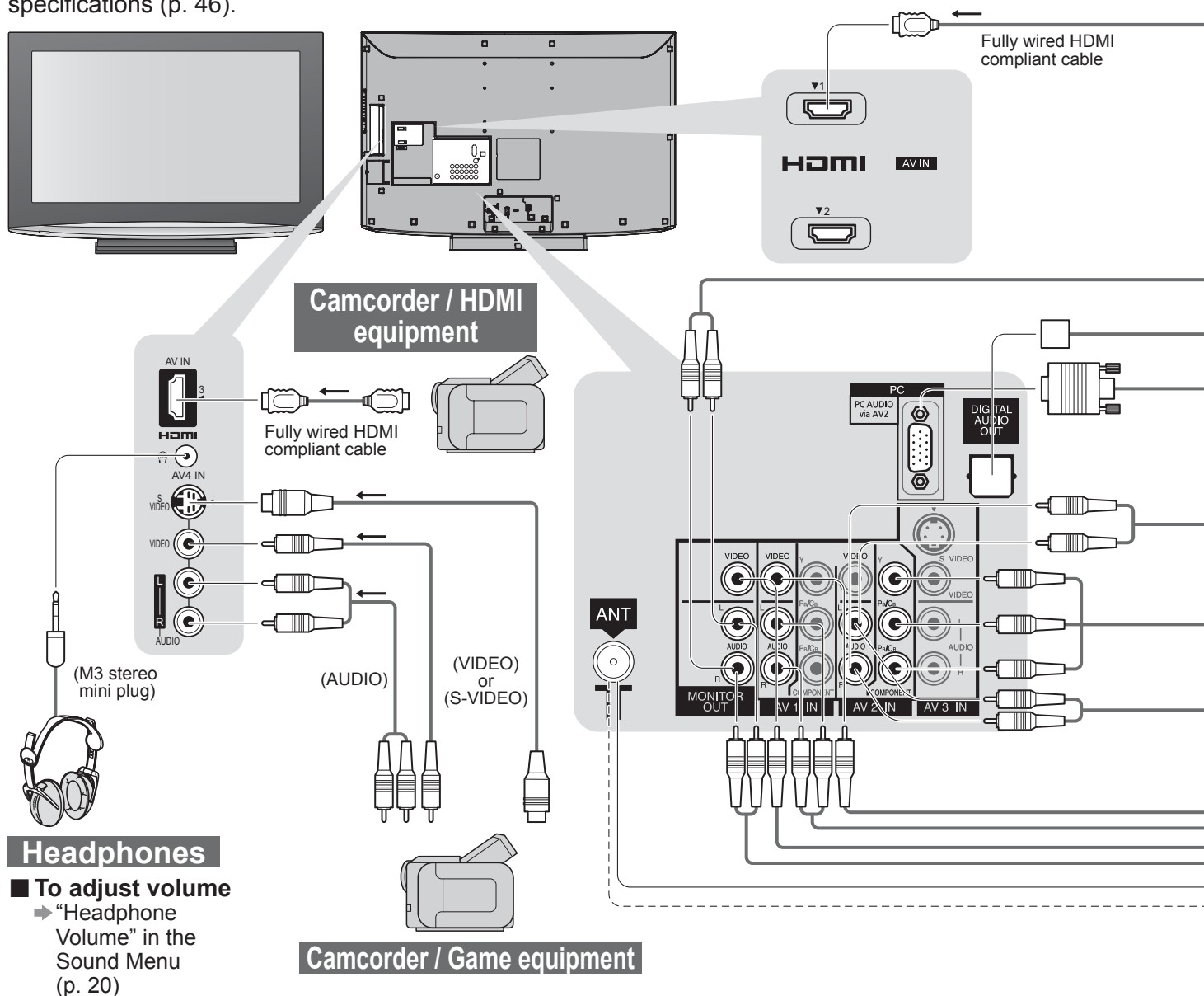
TV
TV speakers are active.

Speaker control

Speaker Selection

External Equipment

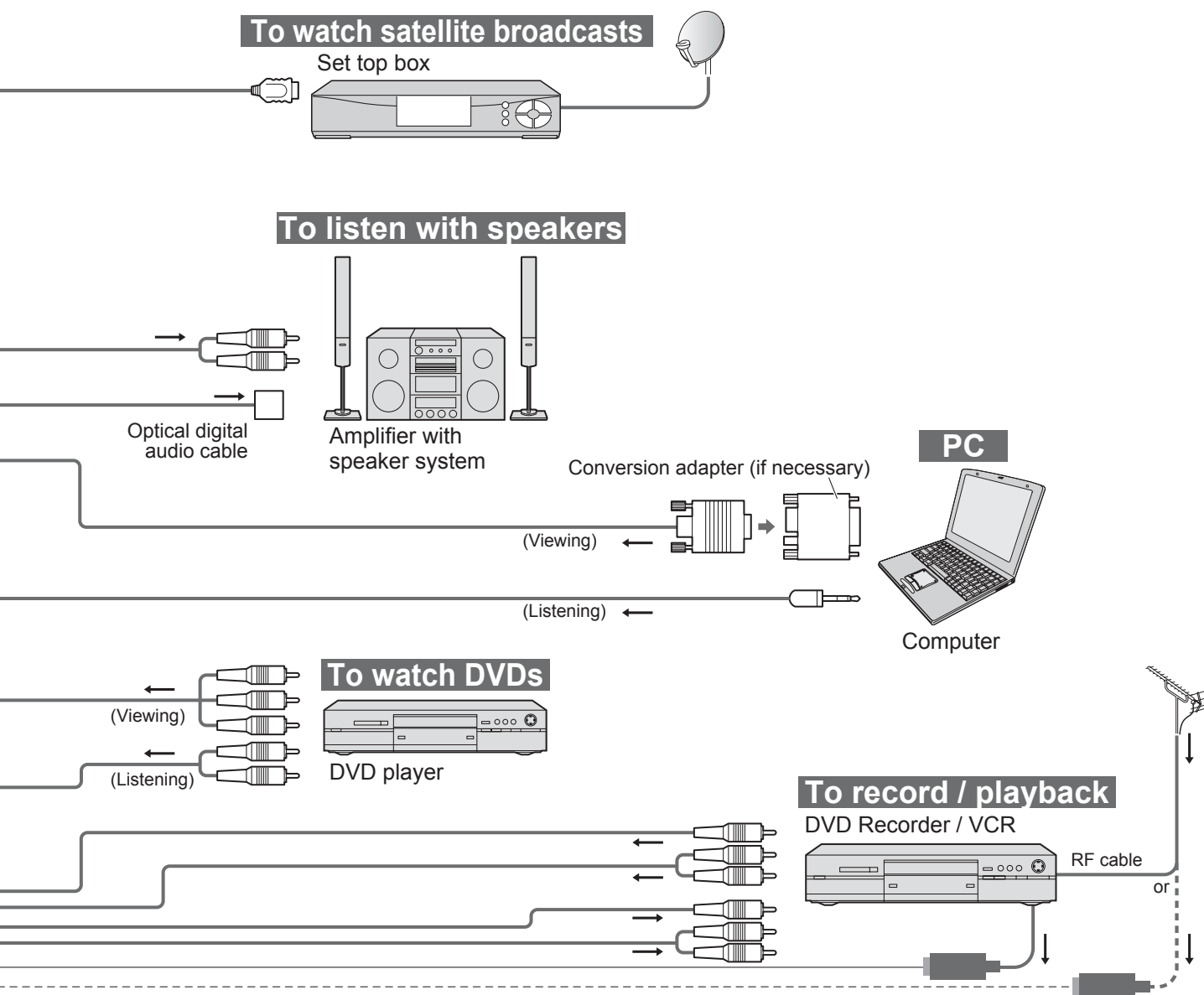
These diagrams show our recommendations for how to connect the TV to your various equipment. For other connections, consult the instructions for each piece of equipment, the table below, and the specifications (p. 46).



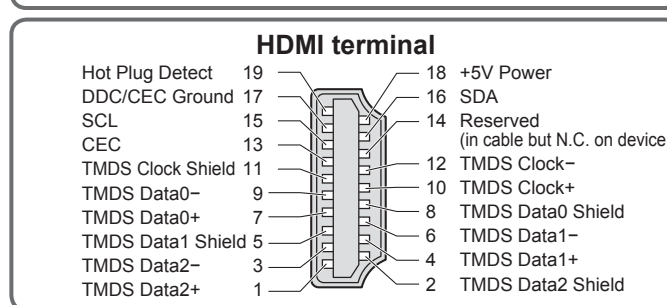
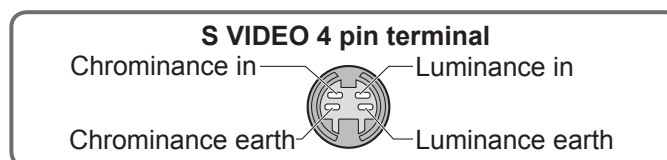
Types of connectable equipment to each terminal

| Terminal | AV1 IN | AV2 IN | AV3 IN | AV4 IN (Side of TV) | |
|---|--------|--------|--------|------------------------|--|
| | | | | | |
| Recording / Playback (equipment) | | | | | |
| To record / playback videocassettes / DVDs (VCR / DVD recorder) | ○ | ○ | ○ | ○ | |
| To watch DVDs (DVD player) | ○ | ○ | ○ | ○ | |
| To watch camcorder images (Video camera) | ○ | ○ | ○ | ○ | |
| To watch satellite broadcasts (Set top box) | ○ | ○ | ○ | ○ | |
| To play games (Game equipment) | ○ | ○ | ○ | ○ | |
| To use amplifier with speaker system | | | | | |
| VIERA Link | | | | | |

○: Recommended Connection



| MONITOR OUT | DIGITAL AUDIO OUT | HDMI | | |
|-----------------|-------------------|------|---|---|
| | | 1 | 2 | 3 |
| VIDEO L R | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |



- Connect the S VIDEO or VIDEO terminal when using AV3 / AV4 IN terminals.
- Connect the COMPONENT or VIDEO terminal when using AV1 / AV2 IN terminals.

Technical Information

Programme Allocation

| Channel Plan | China | Hong Kong | Asia/M.East | NZ / Indonesia | Indian CATV | CIS / E.Europe | South Africa | American System | American CATV | Japan |
|--------------|-------------------|-----------|-------------|----------------|-------------|----------------|--------------|-----------------|---------------|-------|
| CH DISPLAY | Receive programme | | | | | | | | | |
| 0 | — | — | — | — | — | — | — | — | — | — |
| 1 | 1 | — | — | 1 | 1 | 1 | 1 | — | 1 | 1 |
| 2 | 2 | — | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | ~ | — | ~ | ~ | 3 | ~ | ~ | ~ | ~ | ~ |
| 4 | ~ | — | ~ | ~ | 4 | ~ | ~ | ~ | ~ | ~ |
| 5 | ~ | — | ~ | ~ | S'1 | ~ | ~ | ~ | ~ | ~ |
| 6 | ~ | — | ~ | ~ | S'2 | ~ | ~ | ~ | ~ | ~ |
| 7 | ~ | — | ~ | ~ | S'3 | ~ | ~ | ~ | ~ | ~ |
| 11 | ~ | — | 11 | 11 | S1 | ~ | ~ | ~ | ~ | ~ |
| 12 | 12 | — | 12 | — | S2 | 11 | 11 | ~ | ~ | ~ |
| 13 | 13 | — | — | — | S3 | 12 | 12 | ~ | ~ | 12 |
| 14 | ~ | — | — | — | S4 | — | 13 | 13 | ~ | 13 |
| 15 | ~ | — | — | — | ~ | — | — | ~ | ~ | ~ |
| 16 | ~ | — | — | — | ~ | — | — | ~ | ~ | ~ |
| 19 | ~ | — | — | — | ~ | — | — | ~ | ~ | ~ |
| 20 | ~ | — | — | — | S10 | — | — | ~ | ~ | ~ |
| 21 | ~ | 21 | 21 | 21 | 5 | — | — | ~ | ~ | ~ |
| 22 | ~ | ~ | ~ | ~ | 6 | 21 | 21 | ~ | ~ | ~ |
| 23 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| 24 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| 28 | ~ | ~ | ~ | ~ | 12 | ~ | ~ | ~ | ~ | ~ |
| 57 | 57 | ~ | ~ | ~ | S11 | ~ | ~ | ~ | ~ | ~ |
| 58 | — | ~ | ~ | ~ | S40 | ~ | ~ | ~ | ~ | ~ |
| 59 | — | ~ | ~ | ~ | S41 | ~ | ~ | ~ | ~ | ~ |
| 62 | — | 62 | 62 | 62 | 21 | ~ | ~ | ~ | ~ | ~ |
| 63 | — | 63 | 63 | 63 | 24 | 62 | 62 | 62 | 62 | 62 |
| 69 | — | 69 | 69 | 69 | 25 | 63 | 63 | 63 | 63 | C13 |
| 70 | — | — | — | — | 31 | 69 | 69 | 69 | ~ | ~ |
| 73 | — | — | — | — | ~ | ~ | ~ | ~ | ~ | ~ |
| 74 | — | S'1 | S'1 | S'1 | ~ | ~ | ~ | ~ | ~ | ~ |
| 75 | — | S'2 | S'2 | S'2 | ~ | S'1 | S'1 | ~ | ~ | ~ |
| 76 | — | S'3 | S'3 | S'3 | ~ | ~ | S'2 | ~ | ~ | ~ |
| 77 | — | — | — | — | ~ | ~ | S'3 | ~ | ~ | ~ |
| 78 | — | — | — | — | ~ | ~ | ~ | ~ | ~ | ~ |
| 79 | — | — | — | — | 41 | ~ | ~ | ~ | ~ | ~ |
| 80 | — | S1 | S1 | S1 | ~ | ~ | ~ | ~ | ~ | ~ |
| 81 | Z1 | S2 | S2 | S2 | 42 | S1 | S1 | — | ~ | ~ |
| 89 | Z9 | S10 | S10 | S10 | ~ | S2 | S2 | ~ | ~ | ~ |
| 90 | Z10 | S11 | S11 | S11 | 51 | S10 | S10 | ~ | ~ | ~ |
| 91 | Z11 | S12 | S12 | S12 | ~ | ~ | ~ | ~ | ~ | ~ |
| 92 | Z12 | S13 | S13 | S13 | 52 | S11 | — | ~ | ~ | ~ |
| 93 | Z13 | S14 | S14 | S14 | ~ | S12 | ~ | ~ | ~ | ~ |
| 94 | Z14 | S15 | S15 | S15 | ~ | S13 | ~ | ~ | ~ | ~ |
| 95 | Z15 | S16 | S16 | S16 | ~ | S14 | S14 | ~ | ~ | ~ |
| 96 | Z16 | S17 | S17 | S17 | ~ | S15 | S15 | ~ | ~ | ~ |
| 97 | Z17 | S18 | S18 | S18 | ~ | S16 | S16 | ~ | ~ | ~ |
| 98 | Z18 | S19 | S19 | S19 | ~ | S17 | S17 | ~ | ~ | ~ |
| 99 | Z19 | S20 | S20 | S20 | 61 | S18 | S18 | ~ | ~ | ~ |
| 100 | Z20 | S21 | S21 | S21 | ~ | S19 | S19 | ~ | 99 | C49 |
| 107 | ~ | ~ | ~ | ~ | 62 | S20 | S20 | ~ | ~ | ~ |
| 117 | Z37 | ~ | ~ | ~ | 69 | ~ | ~ | ~ | ~ | ~ |
| 118 | — | ~ | ~ | ~ | 70 | ~ | ~ | ~ | ~ | ~ |
| 120 | — | S41 | S41 | S41 | ~ | ~ | ~ | ~ | ~ | ~ |
| 125 | — | — | — | — | ~ | S41 | S41 | ~ | ~ | ~ |
| 125 | — | — | — | — | ~ | ~ | ~ | ~ | 125 | ~ |

Aspect Ratio

The optimum size and aspect can be chosen, and you can enjoy finer images. (p. 13)

| Signal name | | Aspect modes | | | | | | |
|--------------------|----------------|--------------|------|-----|----------|-------|-------|-------|
| | | 16:9 | Just | 4:3 | 4:3 Full | Zoom1 | Zoom2 | Zoom3 |
| TV/AV1/AV2/AV3/AV4 | PAL | ○ | ○ | ○ | — | ○ | ○ | ○ |
| | PAL 525/60 | ○ | ○ | ○ | — | ○ | ○ | ○ |
| | NTSC 4.43 | ○ | ○ | ○ | — | ○ | ○ | ○ |
| | NTSC 3.58 | ○ | ○ | ○ | — | ○ | ○ | ○ |
| Component/HDMI | 525(480)/60i | ○ | ○ | ○ | — | ○ | ○ | ○ |
| | 525(480)/60p | ○ | ○ | ○ | — | ○ | ○ | ○ |
| | 625(576)/50i | ○ | ○ | ○ | — | ○ | ○ | ○ |
| | 625(576)/50p | ○ | ○ | ○ | — | ○ | ○ | ○ |
| | 750(720)/50p | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | 750(720)/60p | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | 1125(1080)/50i | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | 1125(1080)/60i | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | 1125(1080)/50p | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | 1125(1080)/60p | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | 1125(1080)/24p | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| PC input | | ○ | — | ○ | — | — | — | — |

Note

- The ratio varies depending on the programme, etc. If the ratio is greater than the standard “16:9”, black bands may appear at the top and bottom of the screen.
- If the screen size looks unusual when a widescreen-recorded programme is played back on a VCR, adjust the tracking of the VCR. (See the VCR manual.)
- To select the ratio manually: (Only “16:9” or “4:3” in PC mode)

16:9



Directly displays the image at “16:9” without distortion (anamorphic).

Just



Displays a “4:3” image full-screen. Stretching is only noticeable at the left and right edges.

4:3



Displays the image at the standard “4:3” without distortion.

4:3 Full



Displays a “4:3” image enlarged horizontally to fit the screen.
● HD signal only

Zoom1



Displays a “16:9” letterbox or “4:3” image without distortion.

Zoom2



Displays a “16:9” letterbox (anamorphic) image full-screen without distortion.

Zoom3



Displays a “2.35:1” letterbox (anamorphic) image full-screen without distortion. At “16:9”, displays the image at its maximum (with slight enlargement).

Technical Information

Multi Window

You can watch two images at once. (p. 13)

- The same input mode cannot be displayed at once.
- The sound is active for main screen only in multi window.
- You cannot change the aspect ratio in multi window.
- Multi window cannot be used with PC, SD card, HDMI (available for main screen only) or 1080p signal from Component (Y, Pb/Cb, Pr/Cr).
- Some signals are reformatted for suitable viewing on your display.
- The display timeout for the input mode or programme position can be adjusted by "Banner Display Timeout" in Setup Menu (p. 21).

VIERA Link "HDAVI Control™"

HDMI connections to some Panasonic equipment allow you to interface them automatically. (p. 32)

Note

- This function may not work properly depending on the connected equipment.
- Image or sound may not be available for the first few seconds when the playback starts.
- Image or sound may not be available for the first few seconds when Input mode is switched.
- Volume function will be displayed when adjusting the volume of the equipment.
- Easy playback is also available by using the remote control for Amplifier or Player theatre. Read the manual of the equipment.
- About HDMI cable for connecting Panasonic HD Video Camera, read the manual of the equipment.
- If more than one equipment of the same type are connected to the TV by HDMI cables, for example two DIGA Recorders to HDMI1 and HDMI2, VIERA Link will only be available for the lower terminal number, in this case HDMI1.
- "HDAVI Control 3" is the newest standard (current as of December, 2007) for HDAVI Control compatible equipment. This standard is compatible with conventional HDAVI equipment.
- To confirm this TV's version of HDAVI Control ► "System Information" (p. 21)

Stereo / Bilingual Sound Selection

∞/▽ When you receive the stereo / bilingual sound system, sound output modes can be selected by pressing the **I/II** **Stereo / Bilingual Sound Selection** button.

| Audio Signal | STEREO | MAIN I | SUB II | MONO |
|----------------|--------|--------|--------|------|
| Mode Indicator | ∞ | I | II | ▽ |

NICAMUsed in New Zealand, Singapore, Hong Kong etc.

| Type of broadcast | Regular broadcast (Standard Audio) | Regular + NICAM MONO I (MAIN I) | NICAM STEREO | NICAM DUAL MONO (MAIN I / SUB II) |
|-------------------|---------------------------------------|------------------------------------|--------------|--------------------------------------|
| Mode Indicator | No Indicator ↔ ▽ | I ↔ ▽ | ∞ ↔ ▽ | I → II ↙ ▽ ↘ |

A2(German)Used in Australia, Malaysia etc.

| Type of broadcast | Regular broadcast (Standard Audio) | BILINGUAL or DUAL MONO: MAIN I / SUB II | STEREO |
|-------------------|---------------------------------------|--|--------|
| Mode Indicator | No Indicator ↔ ▽ | I ↔ II | ∞ ↔ ▽ |

Note

- If the stereo signal is poor or the receiving conditions are not optimum or if STEREO:MONO automatic switching occurs, it is recommended you switch from STEREO to MONO.
- Even when the contents of the receiving signal undergo changes, selection mode is kept intact.
- When the receiving conditions deteriorate, listening will be easier if the mode is set to the MONO position, using the stereo / bilingual sound selection button.
- DUAL, also known as DUAL MONO or as BILINGUAL is not currently transmitted in some countries.

Data format for Card browsing

- Photo : Still images recorded with digital still cameras compatible with JPEG files of DCF* and EXIF standards
- Data format : Baseline JPEG (Sub-sampling 4:4:4, 4:2:2 or 4:2:0)
- Max. number of files : 9,999
- Image resolution : 160 × 120 to 10,000,000
- Compliant card type (maximum capacity): SDHC Card (16 GB), SD Card (2 GB), Multi Media Card (128 MB), miniSD Card (1 GB) (requiring miniSD adapter)
 - If miniSD Card is used, insert / remove it together with the adapter.
 - Check the latest information on the card type at the following website. (English only)
<http://panasonic.co.jp/pavc/global/cs/>

*DCF (Design rule for camera file system): Unified standard established by Japan Electronics and Information Technology Industries Association (JEITA).

Note

- A JPEG image modified with a PC may not be displayed.
- Images imported from a PC must be compatible with EXIF (Exchangeable Image File) 2.0, 2.1, and 2.2.
- Partly degraded files might be displayed at a reduced resolution.
- Only “.JPG” extension can be read by this TV.
- The folder and file names may be different depending on the digital camera used.
- Do not use two-byte characters or other special codes.
- The card may become unusable with this TV if file or folder names are changed.

HDMI connection

HDMI (high-definition multimedia interface) allows you to enjoy high-definition digital images and high-quality sound by connecting the TV and the equipment.

HDMI-compatible equipment (*1) with an HDMI or DVI output terminal, such as a set top box or a DVD player, can be connected to the HDMI terminal using an HDMI compliant (fully wired) cable.

About connections, see “External Equipment” (p. 36).

Note

- HDMI is the world's first complete digital consumer AV interface complying with a non-compression standard.
- If the external equipment has only a DVI output, connect to the HDMI1 / 3 terminal via a DVI to HDMI adapter cable (*2).
- When the DVI to HDMI adapter cable is used, connect the audio cable to the audio input terminal (HDMI1: use AV2 IN AUDIO terminals / HDMI3: use AV4 IN AUDIO terminals).
- Audio settings can be made on the “HDMI1 / 3 Input” menu screen. (p. 20)
- Applicable audio signal sampling frequencies (2ch L.PCM): 48 kHz, 44.1 kHz, 32 kHz
- HDMI2 terminal is for digital audio signal only.
- Use with a PC is not assumed.
- If the connected equipment has an aspect adjustment function, set the aspect ratio to “16:9”.
- These HDMI connectors are “type A”.
- These HDMI connectors are compatible with HDCP (High-Bandwidth Digital Content Protection) copyright protection.
- An equipment having no digital output terminal may be connected to the input terminal of either “COMPONENT”, “S-VIDEO”, or “VIDEO” to receive analogue signals.
- The HDMI input terminal can be used with only the following image signals:
480i, 480p, 576i, 576p, 720p, 1080i and 1080p. Match the output setting of the digital equipment.
- For details of the applicable HDMI signals, see p. 42.

(*1): The HDMI logo is displayed on HDMI-compliant equipment.

(*2): Enquire at your local digital equipment retailer shop.

Technical Information

PC connection

A PC may be connected to this TV so that the PC screen is displayed and sound is heard from the TV.

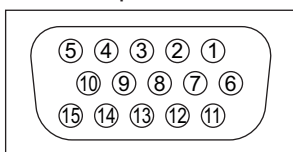
- PC signals that can be inputted: Horizontal scanning frequency 31 to 69 kHz; vertical scanning frequency 59 to 86 Hz (more than 1,024 signal lines could result in incorrect display of the image).
- A PC adapter is not necessary for the DOS/V-compliant D-sub 15-pin connector.

Note

- Some PC models cannot be connected to this TV.
- When using PC, set the colour display quality of PC to the highest position.
- For details of the applicable PC signals, see below.
- Max. display resolution

| | | |
|--------|------|----------------------|
| Aspect | 4:3 | 1,440 × 1,080 pixels |
| | 16:9 | 1,920 × 1,080 pixels |

- D-sub 15-pin connector signal



| Pin No. | Signal Name | Pin No. | Signal Name | Pin No. | Signal Name |
|---------|--------------------|---------|--------------------|---------|--------------------|
| ① | R | ⑥ | GND (Ground) | ⑪ | NC (not connected) |
| ② | G | ⑦ | GND (Ground) | ⑫ | NC (not connected) |
| ③ | B | ⑧ | GND (Ground) | ⑬ | HD |
| ④ | NC (not connected) | ⑨ | NC (not connected) | ⑭ | VD |
| ⑤ | GND (Ground) | ⑩ | GND (Ground) | ⑮ | NC (not connected) |

Input signal that can be displayed

COMPONENT (Y, P_B/C_B, P_R/C_R), HDMI

* Mark: Applicable input signal

| Signal name | COMPONENT | HDMI |
|---------------------|-----------|------|
| 525 (480) / 60i | * | * |
| 525 (480) / 60p | * | * |
| 625 (576) / 50i | * | * |
| 625 (576) / 50p | * | * |
| 750 (720) / 60p | * | * |
| 750 (720) / 50p | * | * |
| 1,125 (1,080) / 60i | * | * |
| 1,125 (1,080) / 50i | * | * |
| 1,125 (1,080) / 60p | | * |
| 1,125 (1,080) / 50p | | * |
| 1,125 (1,080) / 24p | | * |

PC (D-sub 15P)

| Signal name | Horizontal frequency (kHz) | Vertical frequency (Hz) |
|----------------------------|----------------------------|-------------------------|
| 640 × 400 @70 Hz | 31.47 | 70.07 |
| 640 × 480 @60 Hz | 31.47 | 59.94 |
| 640 × 480 @75 Hz | 37.50 | 75.00 |
| 800 × 600 @60 Hz | 37.88 | 60.32 |
| 800 × 600 @75 Hz | 46.88 | 75.00 |
| 800 × 600 @85 Hz | 53.67 | 85.06 |
| 852 × 480 @60 Hz | 31.44 | 59.89 |
| 1,024 × 768 @60 Hz | 48.36 | 60.00 |
| 1,024 × 768 @70 Hz | 56.48 | 70.07 |
| 1,024 × 768 @75 Hz | 60.02 | 75.03 |
| 1,024 × 768 @85 Hz | 68.68 | 85.00 |
| 1,280 × 1,024 @60 Hz | 63.98 | 60.02 |
| 1,366 × 768 @60 Hz | 48.39 | 60.04 |
| Macintosh13" (640 × 480) | 35.00 | 66.67 |
| Macintosh16" (832 × 624) | 49.73 | 74.55 |
| Macintosh21" (1,152 × 870) | 68.68 | 75.06 |

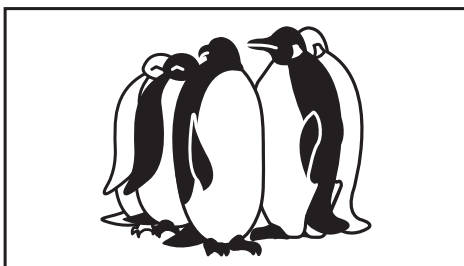
Note

- Signals other than above may not be displayed properly.
- The above signals are reformatted for optimal viewing on your display.
- Applicable input signal for PC is basically compatible to VESA standard timing.
- PC signal is magnified or compressed for display, so that it may not be possible to show fine detail with sufficient clarity.

FAQs

Before requesting service or assistance, please follow these simple guides to resolve the problem. If problem still persists, please contact your local Panasonic dealer for assistance.

White spots or shadow images (noise)



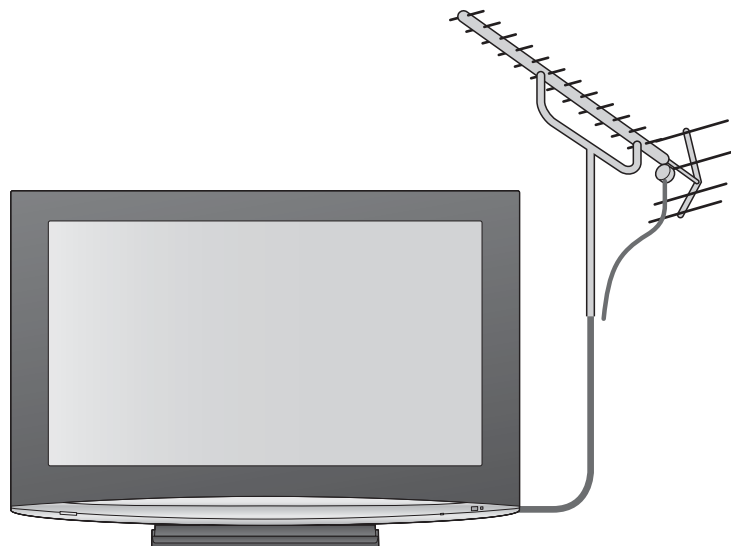
- Check the position, direction, and connection of the aerial.

Neither image nor sound is produced

- Is the TV in "AV mode"?
- Is the mains lead plugged into the socket outlet?
- Is the TV turned On?
- Check Picture Menu (p. 20) and volume.

An error message appears

- Follow the message's instructions.
- If the problem persists, contact the authorized Service Centre.



There may be red spots, blue spots, green spots and black spots on the screen

- This is a characteristic of liquid crystal panels and is not a problem. The liquid crystal panel is built with very high precision technology giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as a fixed point of red, green, blue or black. Please note this does not affect the performance of your LCD.

The LCD panel moves slightly when it is pushed with a finger Clattered sound might be heard

- There are some looseness around the panel to prevent the damage to the panel. The panel might move slightly when it is pushed with a finger, and clattered sound might be heard. This is not a malfunction.

FAQs

| | Problem | Actions |
|--------|--|--|
| Screen | Chaotic image, noisy | <ul style="list-style-type: none"> ● Set "P-NR" in the Picture Menu (to remove noise). (p. 20) ● Check nearby electrical products (car, motorcycle, fluorescent lamp). |
| | No image can be displayed | <ul style="list-style-type: none"> ● Is "Colour" or "Contrast" in the Picture Menu set to the minimum? (p. 20) ● Check Colour System. (p. 25) ● Check AV Colour System. (p. 21) |
| | Blurry or distorted image (no sound or low volume) | <ul style="list-style-type: none"> ● Reset programme. (p. 25) |
| | Unusual image is displayed | <ul style="list-style-type: none"> ● Turn off the TV with Mains power On / Off switch, then turn it on again. |
| Sound | No sound is produced | <ul style="list-style-type: none"> ● Is "Sound mute" active? (p. 7) ● Is the volume set to the minimum? |
| | Sound level is low or sound is distorted | <ul style="list-style-type: none"> ● Sound signal reception may be deteriorated. ● Check Sound system. (p. 25) |
| HDMI | Sound is unusual | <ul style="list-style-type: none"> ● Set the sound setting of the connected equipment to "2ch L.PCM". ● Check the "HDMI1 / 3 Input" setting in the Sound Menu. (p. 20) ● If digital sound connection has a problem, select analogue sound connection. (p. 41) |
| | Pictures from external equipment are unusual when the equipment is connected via HDMI | <ul style="list-style-type: none"> ● Is the HDMI cable connected properly? (p. 36) ● Turn Off the TV and equipment, then turn them On again. ● Check an input signal from the equipment. (p. 42) ● Use an equipment compliant with EIA/CEA-861/861B. |
| Other | TV goes into "Standby mode" | <ul style="list-style-type: none"> ● Off Timer function is activated. ● The TV enters "Standby mode" about 30 min. after broadcasting ends. |
| | The remote control does not work | <ul style="list-style-type: none"> ● Are the batteries installed correctly? (p. 6) ● Has the TV been switched On? |

Licence

Trademark Credits

- VGA is a trademark of International Business Machines Corporation.
- Macintosh is a registered trademark of Apple Computer, USA.
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WARRANTY - New Zealand only

WE WARRANT that the Panasonic Television that you have purchased is free from defects in material and workmanship under normal home use and service.

Accordingly, we undertake to repair, or at our option, replace without cost to the owner, either for material or labour, any part which within 12 months from the date of delivery is found to be defective, provided that the appliance has been used for domestic purposes only and in accordance with the instructions given in the Instruction Book and not been subjected to misuse, neglect or installed, dismantled, repaired or serviced by any other than an authorised Panasonic New Zealand Dealer or Panasonic New Zealand Authorised Service Centre.

NOTE

- Before reporting a fault, please ensure that you read the item "Troubleshooting" in the information section of your Panasonic Instruction Book.
- It is important to retain your proof of purchase as this will be required by the serviceman or retailer as proof of purchase date, should service be required.
- In the event of service being required, contact your Panasonic New Zealand retailer or Panasonic New Zealand Authorised Service Centre.

IMPORTANT

Any request for warranty service must be through an Authorised Panasonic New Zealand Service Centre who during the period of the warranty, undertakes to make any necessary adjustment and fit any replacement part supplied by the manufacturer, during normal working hours, or alternatively will arrange for such service to be provided by some other Panasonic New Zealand Authorised Service Centre.

NEW ZEALAND

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Specifications

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|----------------------------|--|--|---|---|--|---|-------------|--|---|-------------------|------------------------------------|---|-------|---|-------------------|---|----------|----|-------------------|---|------------|----|-------------------|---|------------|----|-------------------|---|----------|----|-------------------|---|----------------------------|----|---------|--|--|--|----|-------------------|---|--|--|--|----|-------------------|--|--|--|----|-------------------|
| Power Source | | AC 230 V, 50 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Power Consumption | Average use | 200 W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Standby condition | 0.3 W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Display panel | Aspect Ratio | 16:9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Visible screen size | 93.9 cm (diagonal) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 819 mm (W) × 460 mm (H) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sound | Number of pixels | 2,073,600 (1,920 (W) × 1,080 (H)) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Speaker | 160 mm × 42 mm × 2 pcs, 8 Ω | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Audio Output | 20 W (10 W + 10 W), 10% THD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Headphones | M3 (3.5 mm) stereo mini Jack × 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PC signals | | VGA, SVGA, XGA, SXGA Horizontal scanning frequency 31 - 69 kHz Vertical scanning frequency 59 - 86 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Receiving Systems / Band name | | <table><tr><td colspan="2">17 Systems</td><td colspan="2">Function</td></tr><tr><td>1</td><td>PAL B, G, H</td><td rowspan="7">Reception of broadcast transmissions and Playback from Video Cassette Tape Recorders</td><td>8</td><td>NTSC 4.43/5.5 MHz</td><td rowspan="7">Playback from Special VCR's or DVD</td></tr><tr><td>2</td><td>PAL I</td><td>9</td><td>NTSC 4.43/6.0 MHz</td></tr><tr><td>3</td><td>PAL D, K</td><td>10</td><td>NTSC 4.43/6.5 MHz</td></tr><tr><td>4</td><td>SECAM B, G</td><td>11</td><td>NTSC 3.58/5.5 MHz</td></tr><tr><td>5</td><td>SECAM D, K</td><td>12</td><td>NTSC 3.58/6.0 MHz</td></tr><tr><td>6</td><td>SECAM K1</td><td>13</td><td>NTSC 3.58/6.5 MHz</td></tr><tr><td>7</td><td>NTSC M (NTSC 3.58/4.5 MHz)</td><td>14</td><td>SECAM I</td></tr><tr><td></td><td></td><td></td><td>15</td><td>PAL 60 Hz/5.5 MHz</td><td rowspan="3">Playback from Special Disc Players and Special VCR's or DVD</td></tr><tr><td></td><td></td><td></td><td>16</td><td>PAL 60 Hz/6.0 MHz</td></tr><tr><td></td><td></td><td></td><td>17</td><td>PAL 60 Hz/6.5 MHz</td></tr></table> | 17 Systems | | Function | | 1 | PAL B, G, H | Reception of broadcast transmissions and Playback from Video Cassette Tape Recorders | 8 | NTSC 4.43/5.5 MHz | Playback from Special VCR's or DVD | 2 | PAL I | 9 | NTSC 4.43/6.0 MHz | 3 | PAL D, K | 10 | NTSC 4.43/6.5 MHz | 4 | SECAM B, G | 11 | NTSC 3.58/5.5 MHz | 5 | SECAM D, K | 12 | NTSC 3.58/6.0 MHz | 6 | SECAM K1 | 13 | NTSC 3.58/6.5 MHz | 7 | NTSC M (NTSC 3.58/4.5 MHz) | 14 | SECAM I | | | | 15 | PAL 60 Hz/5.5 MHz | Playback from Special Disc Players and Special VCR's or DVD | | | | 16 | PAL 60 Hz/6.0 MHz | | | | 17 | PAL 60 Hz/6.5 MHz |
| 17 Systems | | Function | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | PAL B, G, H | Reception of broadcast transmissions and Playback from Video Cassette Tape Recorders | 8 | NTSC 4.43/5.5 MHz | Playback from Special VCR's or DVD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | PAL I | | 9 | NTSC 4.43/6.0 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | PAL D, K | | 10 | NTSC 4.43/6.5 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | SECAM B, G | | 11 | NTSC 3.58/5.5 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | SECAM D, K | | 12 | NTSC 3.58/6.0 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | SECAM K1 | | 13 | NTSC 3.58/6.5 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | NTSC M (NTSC 3.58/4.5 MHz) | | 14 | SECAM I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 15 | PAL 60 Hz/5.5 MHz | Playback from Special Disc Players and Special VCR's or DVD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 16 | PAL 60 Hz/6.0 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 17 | PAL 60 Hz/6.5 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Receiving Channels (Regular TV) | | VHF BAND 2-12 (PAL/SECAM B, K1) 0-12 (PAL B AUST.) 1-9 (PAL B N.Z.) 1-12 (PAL/SECAM D) 1-12 (NTSC M Japan) 2-13 (NTSC M USA) | UHF BAND 21-69 (PAL G, H, I/SECAM G, K, K1) 28-69 (PAL B AUST.) 13-57 (PAL D, K) 13-62 (NTSC M Japan) 14-69 (NTSC M USA) | CATV S1-S20 (OSCAR) 1-125 (USA CATV) C13-C49 (JAPAN) S21-S41 (HYPER) Z1-Z37 (CHINA) 5A, 9A (AUST.) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aerial - Rear | | VHF / UHF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating Conditions | | Temperature : 0 °C - 40 °C Humidity : 20 % - 80 % RH (non-condensing) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connection Terminals | AV1 Input | AUDIO L - R | RCA PIN Type × 2 | 0.5 V[rms] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | VIDEO | RCA PIN Type × 1 | 1.0 V[p-p] (75 Ω) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | COMPONENT | Y P _B /C _B , P _R /C _R | 1.0 V[p-p] (including synchronization) ±0.35 V[p-p] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | AV2 Input | AUDIO L - R | RCA PIN Type × 2 | 0.5 V[rms] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | VIDEO | RCA PIN Type × 1 | 1.0 V[p-p] (75 Ω) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | COMPONENT | Y P _B /C _B , P _R /C _R | 1.0 V[p-p] (including synchronization) ±0.35 V[p-p] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | AV3 Input | AUDIO L - R | RCA PIN Type × 2 | 0.5 V[rms] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | VIDEO | RCA PIN Type × 1 | 1.0 V[p-p] (75 Ω) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | S VIDEO | Mini DIN 4-pin | Y:1.0 V[p-p] (75 Ω) C:0.286 V[p-p] (75 Ω) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | AV4 Input | AUDIO L - R | RCA PIN Type × 2 | 0.5 V[rms] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | VIDEO | RCA PIN Type × 1 | 1.0 V[p-p] (75 Ω) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | S VIDEO | Mini DIN 4-pin | Y:1.0 V[p-p] (75 Ω) C:0.286 V[p-p] (75 Ω) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Others | HDMI1 / 2 / 3 Input | TYPE A Connectors | ● This TV supports “HDAVI Control 3” function. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | PC Input | HIGH-DENSITY D-SUB 15PIN | R, G, B/0.7 V[p-p] (75 Ω) HD, VD/TTL Level 2.0 - 5.0 V[p-p] (high impedance) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | DIGITAL AUDIO OUT | PCM, Fiber optic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Card slot | SD CARD slot × 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Monitor Output | AUDIO L - R | RCA PIN Type × 2 | 0.5 V[rms] (high impedance) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | VIDEO | RCA PIN Type × 1 | 1.0 V[p-p] (75 Ω) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dimensions (W × H × D) | | 933 mm × 650 mm × 295 mm (With TV Stand) 933 mm × 608 mm × 105 mm (TV only) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mass | | 23.0 kg Net | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Note

- Design and Specifications are subject to change without notice. Weight and Dimensions shown are approximate.

MEMO

Customer's Record

The model number and serial number of this product may be found on its rear panel. You should note this serial number in the space provided below and retain this book, plus your purchase receipt, as a permanent record of your purchase to aid in identification in the event of theft or loss, and for Warranty Service purposes.

Model Number _____

Serial Number _____

Matsushita Electric Industrial Co., Ltd.

Web Site : <http://panasonic.net/>

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